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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

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JANUARY, 1942

Vol. 95, No. 1

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FIRE ENGINEERING

A Consolidation of Fire and Water Engineering, The Fire Engineer and Fire Protection

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FRED SHEPPERD
Editor
N. N. WOLPERT, *Assistant Editor*

The Creed of Fire Engineering

WE believe in *Specialization*—confining the magazine's contents to the single field and thus giving the reader a paper devoted wholly to his closest interests without diluting with "allied" or extraneous material.

WE believe that the interests of the *Reader* comes first: that advertising can be effective only when the subscriber has fullest confidence in the editorial integrity of the publication.

WE believe in the principles of the Audit Bureau of Circulations and that only by A.B.C. standards of uniformly audited *Paid Circulation* can the highest quality of publication readership be assured to the advertiser.

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WE believe, in short, in the publication of a magazine that will not only reflect at all times the best interests of the field it serves but one that will lead and stimulate constructive policies in this fundamental field of human endeavor—fire protection and fire prevention.

The Publishers

January 1, 1942

FIRE ENGINEERING

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Regular firemen demonstrate the use of Indian Fire Pumps to prospective defense firemen during drill of emergency Fire Auxiliary Corps.

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"It is the job of every fire fighter to be prepared to meet any contingency. When a fire is lit by an incendiary bomb it will be too late to explain that training and additional personnel were needed."

— — —

"London reported as many as 530 fires breaking out in the city at one time. We must enlarge our personnel and greatly increase our fire fighting equipment."

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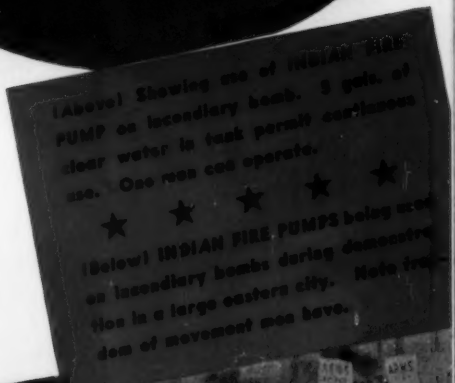

(Above) Showing use of INDIAN FIRE PUMP on incendiary bomb. 5 gals. of clear water in tank permit continuous use. One man can operate.

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(Below) INDIAN FIRE PUMPS being used on incendiary bombs during demonstration in a large eastern city. Note freedom of movement men have.

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The Evacuator is easily attached to any window ledge or roof parapet. It affords real protection to firemen working on roofs of burning buildings.

E & E MANUFACTURING CO., FISHER BUILDING, DETROIT, MICHIGAN

photograph by courtesy of

A.D.T

AERO AUTOMATIC FIRE ALARM

Had it not been for Aero Automatic Fire Alarm, the above photograph of the A. B. Patrick tannery in San Francisco would not exist. It was taken a few days after a fire which unquestionably would have resulted in serious damage, if not total loss, had there been any delay in discovery or alarm.

The outbreak, caused by spontaneous ignition, occurred in an unoccupied section of the plant. Company officials stated that, had there been no automatic protection, the blaze probably would not have been discovered until it assumed sufficient proportions to be seen from outside. In view of the wooden frame construction and other hazards typical of tannery occupancies, any such delay inevitably would have resulted in disaster. As it was, Aero detected the outbreak and summoned the fire department automatically, and the blaze was extinguished before any damage resulted.

* * *

This is but one of countless cases proving that the only certain way to assure prompt detection and reporting of fire is through protection systems that operate *automatically*. With the increased hazards resulting from increased industrial activity, this type of protection is more essential than ever before. If there are any establishments in your territory faced with increased hazards through participation in defense production, sabotage possibilities, etc., we shall be glad to consult the owners about A.D.T. Protection. Your confidence will, of course, be respected. Booklets describing A.D.T. Services are available upon your request.

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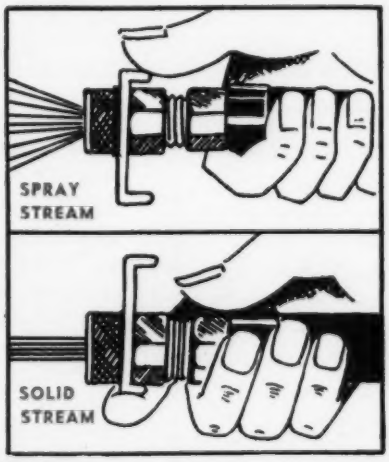
OPERATION OF STIRRUP PUMP NOZZLE

Thumb operated cross slide permits instantaneous adjustment from fine mist spray to solid stream. Adjustable pressure pad applies proper tension on cross slide to insure against leakage and provide definite slide alignment.

NOTE: Do not confuse this stirrup pump with ordinary agricultural pumps of similar appearance. There is danger of explosion if garden hose, chemicals, or other equipment is used on incendiary bombs. *Always look for the adjustable slide nozzle.*



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Operability under all conditions

Modern warfare is not confined to isolated fields of battle—entire populations are involved, and fire is one of the deadliest weapons . . . In the event of war, warnings to the populace of impending air raids must be given swiftly and effectively if lives are to be saved . . . Instructions must be given to the fire fighters and forces on patrol duty . . . In such emergencies signals given by sound with centralized control and by skilled operators provide the swiftest and most dependable means of disseminating intelligence throughout a municipal area.

The Diaphone, pre-eminent for more than 30 years as a public alarm for fire and other emergencies is ideally adapted for all forms of public alarm signaling in time of war. Existing municipal fire alarm circuits may be utilized for air raid and other emergency alarms without impairing the fire service.

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THE GAMEWELL COMPANY

NEWTON UPPER FALLS, MASSACHUSETTS

FIRE ENGINEERING

JANUARY, 1942 VOL. 95. NO. 1

With the Editor

We're In The War! Now that our country has cast its lot with England and her allies, the question arises as to our chance of being subject to aerial attack by the enemy.

We believe there can be only sporadic attacks of small magnitude under present conditions, for the following reasons:

1. Germany has no air bases sufficiently near to enable her to carry on sustained or mass attacks, nor has she airplane carriers which could be used for this purpose.

2. Japan is in a like position insofar as air bases are concerned. She has airplane carriers, but to bring them close enough to our shores to attack would not only put them far from their bases, but would place them in jeopardy from shore attack. No night "sneak" attack would be tried, we believe, for the carrier would have to be illuminated so that her planes could return to deck, and such illumination would make the carrier an easy target for American bombers.

3. The damage done by attack must warrant the cost. Axis airplanes would have considerable difficulty in reaching important industrial cities, munitions factories and military objectives, and there would be planes lost or damaged. Because of the inability of Axis powers to deliver a mass or sustained attack, the danger of serious war plant fires from incendiaries would be small. And even blitzkriegs with high explosive bombs, such as were experienced in England, did not prove profitable to Germany.

4. Token or sporadic bombing, designed to destroy civilian morale, doesn't work. The morale of the British didn't weaken even under vicious, prolonged assaults.

Surprise, or hit and run, aerial attacks on a small scale are possible here and may be employed by the enemy, but our present sea and air patrols will reduce the likelihood of these. Nevertheless where there is the possibility, there must be preparation and vigilance.

Of course, should the axis powers secure air bases on or near the North American continent, then the picture would be very much changed.

Until that time arrives, strengthening American fire departments to the extent that those in Great Britain were augmented would not be justified. But fire departments should be brought up to full peacetime strength and a reasonable supply of auxiliary equipment should be provided; also, a force of auxiliary fire fighters should be trained and maintained.

Don't Expect The Impossible! In the period immediately following the start of hostilities in the Pacific Ocean, and the subsequent declaration of war by the United States on the Axis powers, air raid alarm demonstrations were carried out in cities large and small throughout the country.

A lot was learned from these mock alarms.

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One of the things that civil defense heads, as well as some city officials, discovered was that a single siren did not constitute an air raid alarm system; nor do sirens, spaced miles apart in a large city, prove effective in covering the areas between them.

Manufacturers' representatives could have saved these well meaning civil defense and city officials a lot of embarrassment had they been called in for advice before the half-baked tests were run.

Sirens have proven themselves highly effective as warning devices in small cities and towns, and will do so in big cities if allowance is made for the handicaps imposed by tall buildings, narrow streets and traffic noise. But to expect a siren to have the carrying range in a large city that it has in a town or village is unreasonable.

To be effective in cities, sirens must be placed nearer to each other and complete coverage of the city secured in this manner. Smaller units can be used with excellent results if in sufficient number and properly placed. Mark well that there can be no skimping of funds if a satisfactory job is to be done.

Fire Protection Vital To Defense

As pointed out in these pages frequently during the past four years, fire protection is a vital factor in national defense. For a single large fire may seriously cripple a war industry.

A typical example of what a single fire may do in the way of damage to national defense preparation was the recent rubber fire in Fall River, Mass. Here 18,000 tons of crude rubber in storage was destroyed. When it is pointed out that an average automobile tire requires but six pounds of crude rubber, the magnitude of this loss can be appreciated.

A fire in any other key industry might be equally destructive.

Fire defense is national defense. Unless war munitions factories are enabled to run without serious interruption, whether due to stoppage of machines or destruction of materials, serious harm may result to national defense efforts. And no other agency has a greater potentiality for damage than does uncontrolled fire.

The best insurance against large fires is a strong fire department, well equipped and fully manned.

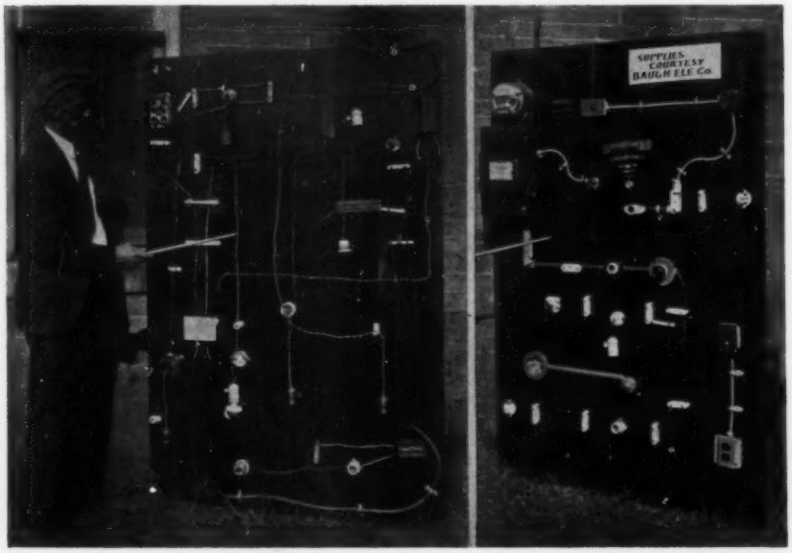
The loss of a single large war industries plant may cost the nation far more than the total cost of bringing the fire service of the entire country to full strength.

Fred Sheppard

Protecting Electrical Equipment in Hazardous Locations

By L. W. GOING
City Electrical Inspector, Portland, Oregon

FROM the beginning electricity has been recognized as a potential fire hazard despite the fact that Public education along this line has been discouraged on the grounds that an admission of hazard would make the public afraid of electricity and thus bring about a reduction in the use of electric current. Years ago when electricity and gas were battling for supremacy in the field of artificial illumination there might have been some justification for soft pedaling the subject of electrical hazards. Today, however, there is nothing to take the place of our electrical facilities and, therefore, nothing to fear from the standpoint of competition through a frank discussion of the subject of electrical hazards.



Left: Types of Wiring Layouts That Cause Fires. Right: How Wiring Equipment Looks When Properly Installed

Our first important commercial use of electricity was the arc lamp. Then came Edison with his incandescent lamp, next the motor, then our domestic appliances, and finally there has come the almost unlimited application and use of electricity industrially. In this era of expansion the industry has had to develop new equipment and new materials. Certain of these materials were not altogether safe nor satisfactory and had to be replaced with material that was safer. Other materials and equipment have been developed to take care of certain conditions and fire hazards and we have had to adopt metal enclosed wiring methods to a large extent, particularly in hazardous occupancies and in premises where the personal or property hazard looms large.

The National Electrical Code, which forms the basis for most Municipal and State Electrical Codes, is a collection of rules and regulations governing the installation and, to a certain extent, the use of electrical equipment. Its purpose is to reduce the hazard from electrical fires and electrical accidents, and it does this by specifying the exact manner in which the electrical materials, devices, fittings and appliances shall be both originally installed and later maintained. A strict compliance with the requirements of the National Electrical Code will produce an installation which may be deemed reasonably safe from electrical fires or accidents at the time of its installation and which, with proper maintenance, should remain in a safe condition over a period of years.

In the last analysis, however, the formula for a safe electrical installation includes (1) the selection of the proper wiring materials and equipment for the particular purpose, use and location; (2) the correct installation of these materials and equipment and (3) proper maintenance.

When an Inspector is called upon to advise the owners of properties involving hazardous processes or materials, it requires a generous application of common sense in interpreting the definitions of hazardous locations.

Hazardous locations logically divide themselves into three definite classes. Class I locations are those where highly explosive vapors or gases are present; Class II locations are those where excessive combustible dusts are either present in the atmosphere in explosive proportions or where there is likelihood of such dust collecting on electrical equipment in such quantities as to prevent proper radiation of heat; Class III locations are those where highly combustible fibres are involved and where the possibility of serious flash fires becomes a consideration through ignition of such fibres either from overheated lamps or electrical equipment or electrical sparks or arcs.

Both the National Electrical Code and the City Electrical Ordinance in the Article on hazardous locations give a brief list of typical plants in each of these classes to aid the inspector in determining in which class a particular plant falls. These explanatory notes carry the statement "some parts of some, etc." to guard against the possibility of an inspector classing the entire factory as a hazardous location when only one small section houses a hazardous process.

As has been previously stated, a certain amount of good judgment

must be exercised by the inspector or engineer in determining whether the location under consideration should be classed as hazardous and, if so, what portions of it should be so classed. This, of course, may be a difficult task if the plant has not yet been placed in operation. However, the following general suggestions may serve as aids.

(1). A careful study of the processes involved including an investigation of the liquids, gases or solid substances which are to be handled from the standpoint of ease of ignition, volatility, flashpoint and explosibility.

(2) A thorough checking of the machines or devices which will be used to determine whether the hazardous materials will be confined in tight drums, tanks, or piping or whether there will be a possibility of leakage into the open room either through normal operating conditions or through accidents.

(3) A careful check of the layout of buildings to determine whether one small section of the plant will be classed as hazardous or whether the conditions extend to all parts.

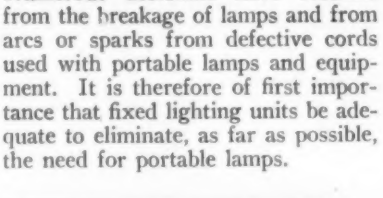
(4) Consulting and cooperating with Underwriters' special hazards spectors who are familiar with conditions in establishments of a like nature and with the Fire Marshal's office and the City Electrical Division for possible special requirements provided by the City Ordinance.

(5) Re-inspection at frequent intervals of plants involving hazardous processes or conditions to determine what conditions prevail under actual operation.

(6) A study of statistics and reports of fires and accidents occurring in premises where hazardous processes were concerned.

The easiest way to avoid these special hazards is to isolate the electrical equipment from the hazardous area whenever this is practical. It is usually unnecessary, for instance, to install service entrance equipment, circuit fuses and similar apparatus in locations where explosive vapors, gases, or dusts are likely to be present in the atmosphere. Nine times out of ten it will be found just as convenient and far more economical to place this equipment in either a remote section of the plant or to enclose it in a separate control room.

Where artificial lighting is necessary in hazardous areas electricity represents the safest lighting medium although it can become a menace to life and property if improper equipment is used or if this equipment is carelessly or improperly installed. Numerous accidents have resulted from the breakage of lamps and from arcs or sparks from defective cords used with portable lamps and equipment. It is therefore of first importance that fixed lighting units be adequate to eliminate, as far as possible, the need for portable lamps.



Showing What Happens to a Cut-Out Box When Wire Jumpers Are Used in Place of Fuses to Supply Badly Overloaded Circuits

Although it is sometimes possible to locate motors away from the hazardous area, this plan, may introduce more serious hazards due to the introduction of line shafting, fast moving belts, and bearings with their attendant hazards from heat or static electricity generated by friction of belting and other moving parts.

Possibly the safest rule for the inspector or engineer to follow is to insist on the elimination of all electrical equipment possible in hazardous locations, but not to the extent of introducing the possibility of the installation of sub-standard facilities after the original installation has been completed.

It may be helpful here to consider some typical examples of processes which may be classed as hazardous and must be wired and equipped in conformity with the requirements of the Code.

Spray Booths

One of the most frequent applications of the rules relating to electrical equipment in Class I occupancies pertains to equipment in spray booths where pyroxylin or other hazardous sprays are used. The rules of the Code prohibit the installation of electrical equipment of any kind in spray booths whether the booths are of the small cabinet type or the mammoth tunnel type used for finishing automobile or bus bodies. We are asked many times "How far from the booth does the hazardous area extend?" A safe rule to follow in this regard is to consider the area immediately surrounding the booth where there is a possibility of spray or residue being present as Class I hazardous areas, also any ducts connected to the booth.

Where artificial lighting is necessary for spray booths the problem has been solved by installing the lighting units at a distance of about 10 feet from the booth and depending on reflected light. Another method of lighting which has proven satisfactory is to mount incandescent or mercury vapor units in recesses of the booth walls with a covering of wired glass in such a way that the glass is flush with the inner wall of the booth.

You may be interested to know that tests, conducted by Underwriters' Laboratories in which pyroxylin finishes were sprayed on the reflectors and outer globes of vapor proof lighting fixtures to determine if there was sufficient heat to ignite the finish, showed a large percentage of cases where the pyroxylin burst into flame, which proved conclusively that all lighting units must be definitely excluded from spray booths.

Spray booths which employ a motor driven wall type fan directly in the ventilating duct are decidedly unsafe. Even the so-called "explosion proof" motor should not be permitted in booth or in ventilating ducts from booths because of the chance of excessive spray residue interfering with proper radiation of heat from the motor surface.

Dry Cleaning Rooms

Dry cleaning rooms with their accompanying spotting, drying and scrubbing rooms are classed as particularly hazardous locations. Prior to the development of Underwriters' approved "explosion proof" motors many states and municipalities passed laws definitely ruling against the locating of motors in these rooms, whether the motors were of the brush "sparking" or standard squirrel cage type. Since the development of the "explosion proof" motor and its listing by Underwriters' Laboratories, most of these rules have been repealed or amended so as to permit the installation of motors of this type.

Improper lighting installations are another haazrd which we have to contend with in dry cleaning plants. It is especially important here that light-

ing should be provided by fixed units rather than by portable lamps for no matter how well portable lights are protected, the danger of breakage is always present. It should be unnecessary to add that fuses, switches, circuit breakers, control and similar equipment should not be installed in these locations. With modern motor control equipment it is possible to place the main control in a non-hazardous part of the building with "explosion proof" push button in the cleaning room, or just outside the room.

Varnish Manufacturing Plants

In varnish manufacturing plants, particularly those where thinners having a flash point of 100° Fahr. and lower are employed and in plants manufacturing paint removers or where materials such as ether, benzine, naptha, acetone, carbon disulphide and similar exposive vapor producing solvents are used, we find hazardous locations which require attention to the type and method of installing electrical equipment. The limits of the hazardous area in such plants is determined by the extent of the sections or rooms in the plant where explosive vapors may be present.

Dusty Locations

The Code rules dealing with Class II locations, that is those where explosive and combustible dusts are present, will apply particularly to flour mills, grain elevators and feed mills. A short discussion of these occupancies and the nature of the hazards involved may help us to determine just what portions of the plant are really the hazardous areas.

We usually find the modern flour mill divided into three main sections. First, the grain receiving and grain storage section where the grain is received, partially cleaned and stored in tanks or bins. The grain as received from cars or trucks is usually carried into the building by means of a belt or spiral conveyors and elevated to the top of the building by bucket elevators where it is either passed through a grain cleaner or discharged onto belt conveyors and distributed to the tanks or bins for storage until needed in the milling process. At points where belt conveyors discharge, where grain is spouted or where cleaners are located, it can be taken for granted that dust conditions will be severe enough to require the application of the rules for Class II occupancies.

Wherever grain is handled a certain amount of dust is shaken off. This dust, when mixed with air in the right proportions is highly combustible and very explosive. It is possible to control the dust hazard to a considerable extent by the use of adequate dust removal equipment, and by maintaining a high standard of cleanliness. In this, however, we are placing dependence on the human element which, as experience had taught us, is often unwise. For this reason we usually classify the entire grain receiving and bulk storage sections of the mill as a Class II hazardous area.

Individual motor drives on the various machines is the general practice in modern grain elevators and for this reason motors cannot be easily isolated in a separate room or power house. However, this is not a serious problem today as enclosed pipe ventilated and fan cooled motors are readily available and these may be placed in the dirtiest places with safety. Ordinary fuses, switches, circuit breakers and motor control apparatus is permissible if located in fire resistive rooms. Motors may be started and stopped by push buttons of the dust-tight type located at any convenient point.

Portable lamps have proved to be a distinct hazard in plants of this character and numerous fires and explosions have resulted through breakage of the lamp or failure of the cord in dusty atmospheres. It is important, therefore, to reduce the need for portable lamps by providing adequate general illumination with fixed dust-tight lighting units. If portable lamps are absolutely necessary they should be equipped with substantial protective guards and outer enclosing globes and supplied by nothing but heavy duty cords, type "S" or equivalent. Fixed lighting units in dusty atmospheres must also be equipped with dust-tight outer enclosing globes designed to prevent the ignition of dust which may accumulate on the surface of the lamps. Where subject to breakage such fixed lighting units must be equipped with substantial guards.

The second section of a flour mill which requires the application of the rules of Class II is the manufacturing or milling department. This department is quite often divided into two sections, the cleaning machinery being located in a separate unit cut off by a fire wall from the main milling unit. In this cleaning department are located the machines for thoroughly cleaning and scouring the grain and preparing it for milling into flour. Here again we have dust conditions which warrant throwing this department into the hazardous classification depending possibly to some extent on the efficiency of dust removal equipment and housekeeping. It is possible however, to drive all machines in this department with a single motor located in a fire resistive motor room made reasonably dust tight and suitably ventilated. Otherwise the electrical equipment in the grain cleaning department should follow closely the rules for Class II hazardous areas.

It is sometimes difficult to prescribe in advance just what type of electrical equipment should be used in the milling department proper as conditions are affected to a large extent by the efficiency of dust collecting apparatus and the continued maintenance of good housekeeping. Under normal operating conditions a modern flour mill may be almost free of dust yet when a chokeup occurs flour may be dusted out from spouts or machines in such quantities that, should there be the slightest arc or spark, a serious explosion would follow. It is these extreme or unusual conditions which we must guard against.

The main milling equipment in a modern flour mill usually operates as a single unit and it is therefore practicable to locate the motor in a separate fire-resistive motor room or power house which may also contain the service entrance equipment, fuses circuit breakers, motor controllers and other auxiliaries. Here, again, remote control may be used to good advantage with dust-tight push button stations located on each floor of the mill. Where it is necessary to use auxiliary motors in a flour mill to drive machines such as packers, elevators and similar equipment care should be taken to see that such motors are of a type approved for use in dusty atmospheres, such as the enclosed pipe ventilated or fan cooled types. Controls for these auxiliary motors may be of the remote control type but if it is found necessary to locate controls in the main plant they must be enclosed in dust-tight cases.

Adequate lighting by fixed dust-tight lighting units is important in the milling department not only from the standpoint of elimination of portable lamps but also to prevent accidents. Unprotected portable lamps are very hazardous and should be used only when absolutely necessary. Portable lamps should always be equipped with substantial guards and dust-tight outer enclosing globes. The lamp guards are absolutely essential where such portables are lowered into flour bins or grain bins.

The third section of a flour milling plant is the warehouse section which is ordinarily used solely for the storage and shipping of flour and mill feeds in sacks. As there is usually little dust present in this section, it need not be definitely included as a Class II hazardous area if reasonably well cut off from the milling department. However fixed lighting units with outer enclosing globes are recommended as best practice for the warehouse section as there is bound to be some accumulation of dust in this area.

The grinding and mixing departments of feed mills are, as a general rule, quite dusty and owing to the necessity for more open operation than in flour mills good housekeeping is almost out of the question. In addition, the grain receiving hazard is also present. Usually a large area of a feed mill is given over to the storage of sacked products or sacked raw materials which do not represent a particularly hazardous condition if well cut off from the mill proper. The manufacturing departments, however, should be classed as Class II hazardous locations and the electrical equipment treated accordingly.

Class III Locations

In the Code, dealing with Class III hazardous locations, rules have been drawn which are intended to prevent the ignition of combustible fibres or flyings of combustible materials by arcing contacts, resistors, lamps or similar apparatus.

The cotton gin is a very good example of this class. With cotton lint or "flyings" hanging from walls, beams, and joists and collecting on electrical equipment it is needless to say that a small spark or arc is all that is necessary to ignite these fibres which, when once ignited, cause flames to travel very rapidly. Proper precautions in the selection and installation of equipment are necessary to avoid as far as possible the ignition of these fibres by arcs, sparks, or overheated electrical equipment.

Some parts of woodworking plants may also come under this classification whenever there appears to be a danger of ignition of shavings or wood dust from sparks, arcs, or overheated electrical apparatus.

Possibly paper mill and even printing shops should also be included in Class III locations, for sparks from a brush type motor or from an open switch might cause ignition of paper scrap and result in a destructive fire.

We cannot emphasize too strongly the need of adequate grounding of all equipment in hazardous locations, as no matter how well an installation is made there is always the chance of an accidental ground in conduit, motor or controller case and every precaution should be taken to prevent such an accidental ground causing trouble. Locknuts, single or double, should not be depended upon for completing the grounding circuit through a switch box or controller case. Bonding jumpers or other devices approved for the purpose should be used to insure a complete and permanent grounding circuit.

In conclusion, we repeat that the classification of hazardous locations involves the application of good common sense supplemented by a careful study of conditions and past experiences with such conditions.

Acetylene Explosion Endangers Bridge Traffic

While the upper level of the Bay Bridge, connecting San Francisco and Oakland, teemed with traffic bound for the "Big Game" between the University of California and Stanford University at Palo Alto on November 29, a truck, loaded with acetylene tanks, skidded on the rain-soaked lower level and turned over.

There was an immediate explosion of several tanks, and the truck began to blaze fiercely, endangering the other tanks. Luckily, trains of the Key Route system, which use the lower level together with trucks, and other vehicles were sufficiently distant when the accident occurred so that their operators were able to bring them to a halt a safe distance from the burning and exploding truck.

Frank Trainer, the driver, was able to escape from the cab by smashing the windshield and climbing to safety.

The accident happened near enough to the San Francisco approach so that pedestrians far below on the ground could see it. One of these immediately sounded a box alarm from Pier 32. The apparatus then had to backtrack several blocks to get on the bridge approach.

The fire alarm office, apprised of the situation, immediately struck a special call for a chemical company to respond to Box 2222 on the Bridge approach. Another chemical was sent to the box at the Bridge approach and then proceeded to the fire.

Traffic on the lower level was tied up for more than a half hour while firemen and emergency equipment extinguished the fire and righted the truck.

Trainor told State Highway Police, who patrol the bridge, that he attempted to slow down but when he applied the brakes they locked, throwing him into a skid. A guard rail prevented the heavy vehicle from falling into the bay, several hundred feet below.

BOB GREENOCK

Another Extra-Curriculum Job for the Fire Department

With its feet all tangled up in a piece of fishline in a tree, an unidentified pigeon had what must have been a painful experience in Central Park, Schenectady, N. Y., recently.

Firemen from the Brandywine Avenue station, directed by Lieutenant Fred S. Broekand, rescued the bird and took it to the station where it was sheltered and given first aid.

Recovering from its injuries, the pigeon was taken out of doors and released. It flew away as if nothing had happened.

Gasoline Truck Crashes Through Street Car

One man was killed and eight other passengers were injured when a big tank truck and trailer loaded with gasoline rammed through a street car in Los Angeles, Cal. Trapped passengers smashed windows to escape when gasoline spraying from the truck, caught fire. The street car was charred by the flames.

Kern County Goes to a Fire

County Fire Department Has 28 Stations and 160 Employees

By BOB GREENOCK

One of the best, if not the best county fire department set-ups, is to be found in Kern County, located in the southern part of California.

The county is the third largest in the state, rectangular in shape extending some 65 miles from north to south and averages about 125 miles from east to west. The area is greater than that of the State of Massachusetts. About a third of the area in the central and northwestern parts is covered by the San Joaquin Valley, mountains cover over forty per cent of the east central and southern sections and desert regions extend over a quarter of the extreme east and southeast parts of the county.

The climate is unusually dry, making for great fire hazards. The winters are cool with rain and occasional frosts in the valley and moderate to heavy snowfalls in the mountains. Summers are exceptionally hot and dry. In general, no rain falls between the middle of April and the last of October. Temperatures from June to September, inclusive, average over 80 degrees and mean maximum temperatures run from 100 to 112 degrees. Annual rainfall varies from 4 to 9 inches, averaging a little over 6 inches. Winter humidity runs from 60 to 85. In the summer, it ranges from 50 down to 10 or lower.

Buildings Forming Triangle in Center of Picture Are Headquarters Group at Bakersfield

Directly opposite (below) is warehouse group. The lot opposite the office building was used for making adobe, used in the construction of buildings throughout the county. Some of it can be seen drying in the sun. This picture was taken before the group of buildings now on the north side of the highway were completed.

Present population of the county is estimated at 140,000. The county seat and largest city is Bakersfield, headquarters of the Kern County Fire Department. Population of the metropolitan district is about 75,000. Taft, located in the southwestern part of the county, is the second largest city with more than 10,000 population. There are about 15 other cities and towns varying from 3000 down to a few hundred persons.

Principal industry of the county is oil production. Agriculture is also an important industry. Dairy farms thrive. Grain covers an estimated 160,000 acres while vineyards, fruit orchards, cotton and potatoes are grown extensively. Mountainous areas are mined for gold, silver, cement and borax. Cattle and sheep raising are important industries in the eastern half of the county.

The long, hot, dry summers make for serious fire hazards. Burnable materials ignite readily and fire spreads rapidly. Kern County contains nearly 10 per cent of the Clark-McNary area of the state.

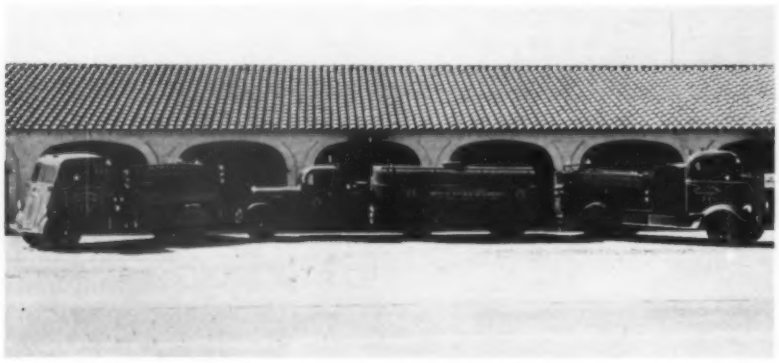
In 1927, the State of California made an agreement with the county whereby the county provided $12,000 for salaries and equipment while the state paid all suppression costs and provided a ranger. The next year, two fire wardens were added but no motorized apparatus. The budget was reduced to $8,000 in 1929 but in 1930 the amount was again set at $12,000 and a state ranger, Harold P. Bowhay, was placed in charge and has remained ever since.

The State Division of Forestry in conjunction with county funds now provides protection not only for brush and timber country but also for grass, grain, other crops and buildings. No objections have been raised by the taxpayers. As a matter of fact, they have demanded more and more fire protection. Insurance rates have been greatly reduced.

In 1932, there were five men in the department, including Chief Bowhay. Today the personnel consists of 152 men and eight girls on the payroll, 150 National Youth Administration and 150 Works Progress Administration employes not on the fire department payroll but working on projects under its supervision.

At the present time the K.C.F.D. operates 23 year-around stations, three seasonal stations and five look-

outs. Five of the stations are located in incorporated towns and the local fire departments are housed in the K.C.F.D. stations. The county department also operates inside seven fire districts which are operated and housed in the same manner.



Trucks in Front of Bakersfield Headquarters Engine House

On the right and left are two of the larger pumpers used by the department. In the center is the 1150-gallon tank semi-trailer, now stationed at Taft.

Headquarters are located at Bakersfield inside the city limits. Situated in the northern section of the city on the south side of U. S. Highway 99, are the ten buildings housing the fire apparatus, domitories, recreation room, kitchen, refrigerator and store room, mess hall, laundry, auto wash room, drafting room, radio room, store rooms and hose tower. One building contains the auto repair shops, photographic laboratory; another is used as an office building. There is a service station and four residences for the chief officers.

Across the highway is a warehouse, 300 by 30 feet, a wood shop and mill, lumber and other building material warehouse, paint and oil store rooms, test pits, wash racks, hose tower, oil and gasoline tanks and a nine-apartment dormitory for off-shift men.

Geographically, Bakersfield is ideally located in nearly the exact center of the county. Consequently, it supplies reinforcements to the other stations in event of large conflagrations and fills in at vacated stations with some of its many pieces of equipment.

Alarms from anywhere in the county are transmitted to the nearest station or to headquarters by telephone. If an alarm is received by any station other than Bakersfield, the report is immediately radioed to headquarters. There the dispatcher takes whatever action the type of alarm indicates is necessary and companies from the nearest station are dispatched. Other companies are rushed to the scene, either from headquarters or from some other station if it is nearer.

The dispatcher transmits his orders over KRBJ, a 500 watt station on 2226 kilocycles, or by 'phone. He has absolute control over all companies, dispatching companies to cover in when occasion demands. He acts in much the same way as any city department fire alarm operator does.

Should KRBJ fail, a 50-watt portable station, KQNJ, is always ready to take over. At Midway Peak Lookout, only means of communication with the outside world is by KSFW, a ten-watter on a frequency of 2244 kilocycles. Telephone service for the greater portion of the county is supplied by the Pacific Telephone and Telegraph Company. However, the K.C.F.D. maintains lines in areas not served by the Bell system.

Equipment operated by the K.C.F.D. consists of 26 light pickup trucks equipped with two-way radio and carrying 60 to 125 gallons of water and a low capacity fire pump; 27 large pumpers, 22 of them equipped with radio receiving sets, and carrying 300 to 600 gallons of water. These pumpers can deliver as much as 500 g.p.m. There are two semi-trailer pump-and-water tank units, one carrying 1150 gallons of water and the other 2300; two bulldozers, five flat racks, three station wagons, three sedans, five coupes, one four-wheel-drive grader with blade, one semi-trailer flat rack, one trailer pump and a five-passenger Stinson airplane complete with two-way radio and instruments for blind flying. At Bakersfield is a hospital trailer unit equipped to handle major operations, if necessary.

The smaller trucks are used for all types of fires but are particularly useful where the terrain is too rough for the heavier pumpers. They can control a surprsing amount of fire and discharge from tanks or hydrants and draft from any available supply just like their larger brothers.

The 1150-gallon semi-trailer formerly was stationed at Bakersfield and responded to all fires within a range of 20 miles. Several trucks could refill from the larger one, allowing for continuous operation at fires removed from a water supply. The 1150 semi-trailer, said to be the largest of its type at that time, is now stationed at Taft and the 2300-gallon semi-trailer has taken its place at Bakersfield.

Stinson "Reliant" Loading Supplies to Drop to Crews on Fire Lines

Officers use the pickups, sedans or coupes and are in constant touch with Bakersfield headquarters via the two-way radio. The department also has two portable three-watt sets, powered by batteries, which are used during forest or mountain fires.

2300-Gallon Tank Semi-Trailer with 750 G.P.M. Centrifugal Pump Mounted Midship
This is believed to be the largest of its type, and is stationed at Bakersfield.

Stations having receiving sets are located at Lebec, Taft, Arvin, Lost Hills, Delano, Keene, Wasco, Shafter, Maricopa, Tehachapi, McKittrick, Woody, Mojave, Greenfield and Annette.

Stations are located within a reasonable distance of any town in the county, no matter how small. No town suffers from lack of protection for the K.C.F.D. serves the entire county, an area of 5,120,000 acres. Where the department serves with fire districts such as Wasco, Mojave, South Taft or Ford City, district funds are spent within the district to improve water supplies and to purchase hose and other equipment.

Bakersfield and other cities such as Delano, Maricopa and Tehachapi have their own city fire departments working only within the urban limits while the county apparatus is not limited by district or city boundaries. The county's apparatus will aid any one of the adjoining eight counties when necessary and no request for aid has ever been refused.

Bakersfield has a fine department of its own and county trucks stationed either in the headquarters station or one of the four other stations in nearby suburbs do not respond unless requested to. There is close co-operation between the county and city or district departments at all times and perfect harmony exists.

Although the oil fields present a great hazard, fires are usually confined to small areas and extinguished in the incipiency. While the K.C. F.D. has foam powder and generators of its own, they are seldom used inasmuch as all the oil companies have large supplies on hand. Small oil fires are extinguished with vaporized water or fog nozzles and the larger ones with foam. The large oil companies supply men and equipment to augment the county forces in fighting an oil fire. Therefore, county assistance is usually limited to supplying hose lines and pump pressure and, at times, an increased water supply from the tank trucks.

In event of any emergency, the fire service of the San Joaquin Valley is prepared. County and city ordinances have been passed allowing full co-operation in times of emergency. All county and state rural fire departments have listed their regular and emergency fire fighting equipment with the Central California Rural Fire Association, the father of the emergency fire defense plan in California. Chief Bowhay is president of that association.

Plans are constantly being made for the future. At the moment another station is being completed at Greenfield, south of Bakersfield. Another one is due to be erected at Boron, out on the Mojave Desert, near the San Bernardino County line and where the Pacific Coast Borax Company has a large plant.

As time goes on, more men and equipment will be added. The Kern County Fire Department has a progressive chief in there battling all the time and he'll see to it.

Massillon Receives Third New Fire Truck

A 65-foot Seagrave aerial ladder truck was recently added to the Massillon, Ohio, Fire Department, bringing the number of trucks in the department to eight. The truck is the third purchased since last June.

In addition to the 65-foot steel ladder, the machine has 212 feet of ground ladders and is equipped with a 200-gallon water container with attached booster pump.

Ordinance Restores Police and Fire Salaries

Full restoration of wages in the Police and Fire Departments to the level which prevailed prior to 1932 was voted recently by the City Council of Canton, Ohio. The wage increases took effect on January 1.

The base pay of firemen and patrolmen will be $2,040 a year, although men with less than two years of service will receive lower salaries. During the first six months, pay will be $125 a month; next six months, $135; next six months, $150 and last six months, $160.

Fairfield County Chiefs Meet

The Fairfield County (Conn.) Fire Chiefs' Emergency Plan held their December meeting at the Elks' Home as guests of Chief Charles Volk and the Norwalk Fire Department on December 17. Russell Glenn of the Gamewell Company and Lieutenant Gene Lindsey, Deputy State Fire Marshal, were the speakers and sent the 195 members and guests home with solution to some of their problems relative to the sounding of air raid alarms over the fire department alarm systems, at the same time stressing the need of coordination in the defense effort of all agencies in the State of Connecticut.

Mr. Glenn discussed the communication system that must be developed in times of air raids to counteract the possible loss of telephone communication. He said that the air raid alarms as prescribed by the State Defense Council were not feasible as the sounding of a two minute blast was not possible with fire departments having transmitters of certain types, while the sounding of a siren for two minutes would not give it the same penetration as a series of blasts allowing the siren to "wail."

Lieutenant Lindsey discussed the new local fire marshal state laws which provide for the appointment of volunteer fire chiefs as local fire marshals by the selectman of the town. He stressed that merely the appointment does not suffice, as the chief must be sworn in and accept the appointment.

Leon R. Meaney, Chairman of the Educational Committee of the Plan, pointed out that all fire departments should take steps to make certain that their firehouses and equipment are always protected from sabotage even if volunteer houses have to assign men to day and night shifts. A little water in the gas tank and gasoline in the booster tank or other manipulations would embarrass the department no end if not checked and would result in disaster if the sabotage is followed by an air raid.

Past Chief C. T. Fairty of New Canaan, Lieutenant Andrew Peterson of Long Ridge, Stamford, and Chief Frank Dennert of Westport were elected to membership in the Plan.

Other speakers during the evening were Fire Commissioner Hamilton of Norwalk, Chief Charles Volk, Councilman Eric Gustavson, Dr. Arthur Tracy, surgeon of the Norwalk Fire Department and D. W. Harford who is Secretary of the State Firemen's Association.

The meeting was presided over by Chief Stuart Potter of Greenwich, President of the Plan.

CHIEF JOHN MOEHRING

FIRE HOSE COVERED BY OPM PRIORITY RATING

Supplementary Order Amended To Restrict Use of Rubber

MANUFACTURERS of fire hose and other essential items for fire extinguishing apparatus which are made of rubber are ensured of their rubber supply under the Amendment No. 1 to Supplementary Order No. M-15-b issued on December 27, 1941 by Donald M. Nelson, Director of Priorities, of the Office of Production Management.

Under this order manufacturers will be able to fill orders assigned on A-3 or better preference rating. Fire hose has already been assigned an A-2 rating.

The attention of the fire service is called to paragraph 14 under heading (b) General restriction on the use of rubber.

Following is the full text of the new order:

Part 940—Rubber and Products and Materials of which rubber is a component.

Amendment No. 1 to Supplementary Order No. M-15-b, to restrict the use of rubber

Supplementary Order No. M-15-b is hereby amended to read as follows:

Whereas, the further importation of crude rubber is imperiled:

Now, therefore, it is hereby ordered that:

94.3 General Limitation Order

(a) **Definitions.** For the purposes of this order:

(1) "Rubber" means compounded liquid latex which on December 11, 1941, had not been processed or mixed in such manner that further processing is necessary to prevent early spoilage, and all forms and types of crude rubber (including crepe rubber for soles or any other purpose) and liquid latex in crude form, but does not include balata, gutta percha, gutta siak, gutta jolutong, pontianac, reclaimed rubber and scrap rubber.

(2) "Person" means any individual, partnership, corporation or other form of business enterprise.

(b) **General restriction on the use of rubber.** From the date of issuance of this order until otherwise ordered by the Office of Production Management, no person shall consume, use, process, stamp, cut or in any manner change the form, shape or chemical composition of any rubber for any purpose other than one or more of the following:

(1) To fill orders assigned on A-3 or better preference rating.

(2) To manufacture camelback in amounts not exceeding the minimum amount specified in letter dated December 5, 1941, from the Director of Priorities to manufacturers of camelback. Any manufacturer of camelback who did not receive such a letter from the Director of Priorities may use Rubber in the manufacture of camelback during any monthly period, beginning with December, 1941, in an amount not exceeding the amount of Rubber which he used in the manufacture of camelback during the month of November 1941.

(3) To manufacture tires, tire casings and tire tubes and other rubber products necessary for the manufacture, maintenance or repair of trucks or buses which require tires of a size of 7:00x20 or larger.

(4) To manufacture these rubber products necessary for the maintenance and repair of industrial equipment or necessary to the manufacture of, but not physically incorporated in, any manufactured product other than industrial equipment. For the purposes of this subparagraph "industrial equipment" shall mean equipment used in manufacturing establishments, mining, quarrying, petroleum production and refining, telephone and telegraph systems, radio communication systems, gas, water and electric power systems, railroads, street railways and buses, but shall not include tires, tire casing or tire tubes for any vehicle.

(5) To manufacture laboratory and hospital supplies and such other health supplies as are approved under Preference Rating Order No. P-29, as amended.

(6) "To manufacture heels made of black or brown composition rubber only, soles, taps and soling strips made of black composition rubber only, and rubberized fabrics, inner-soles, midsoles, fillers and backing cloths to be incorporated in shoes and other footwear."

(7) To manufacture industrial rubber gloves, fabric-topped footwear made with black compounded rubber soles only, rubber boots, and industrial protective rubber clothing, galoshes with fabric tops, and plain all rubber overshoes and galoshes.

(8) To manufacture plumbers' supplies.

(9) To manufacture articles for use in preserving, canning and packing food, except rubber bands, rubber binders and similar articles used in the field or to hold packages or bundles together.

(10) To manufacture compounds for insulating wire and cable.

(11) To manufacture vulcanizing materials, patches, cement, blowout shoes and similar items for the repair of tires, tire casings and tire tubes.

(12) To manufacture cements necessary in the fabrication of finished products.

(13) To manufacture bottle nipples for feeding infants.

(14) "To manufacture fire hose and other essential items for fire extinguishing apparatus."

Providing that the use of Rubber by each such Person during any calendar month, beginning with the month of December, 1941, in the manufacture of processing permitted by sub-paragraphs (4) to (14) inclusive shall not be at rates greater than the rates of consumption in the manufacture of similar items during November, 1941, to fill purchase orders which were not assigned a Preference Rating of A-3 or better.

Provided further, that any Person who, prior to December 11, 1941, had commenced the processing of any Rubber other than compounded liquid latex in such manner that its form or chemical content had undergone a substantial change may continue such processing to completion.

(c) **General Restriction on the Sale of Tires.** Except to fill orders assigned an A-3 or better Preference Rating, from the date of issuance of this Order until January 5, 1942, no new automobile, truck, bus, motorcycle, farm implement, or other type of tire, tire casing or tire tube, other than bicycle tires, shall be sold, leased, traded, delivered or transferred by any person, provided that the foregoing prohibition shall not apply to tires which are sold as part of new vehicles being sold and which are affixed to such vehicles at the time of their sale.

(d) **Violations and false statements.** Any Person who violates this Order, or who wilfully furnishes false information to the Office of Production Management may be deprived of priorities assistance or may be prohibited by the Office of Production Management from obtaining any further deliveries of materials subject to allocation. The Office of Production Management may also take any other action deemed appropriate, including the making of recommendation for prosecution under section 35A of the Criminal Code (18 U. S. C. 80).

(e) **Appeal.** Any Person affected by this Order who considers that compliance therewith would work an exceptional and unreasonable hardship upon him may appeal to the Office of Production Management by Addressing a letter to the Rubber and Rubber Products Branch of the Division of Civilian Supply, Office of Production Management, Washington, D. C., setting forth the pertinent facts and the reasons such person considers that he is entitled to relief. The Office of Production Management may thereupon take such action as it deems appropriate.

(f) This Order supersedes the provision of paragraph (c) (1) of General Preference Order M-15, as amended and supplemented, and all letters issued pursuant to such paragraph (c) (1).

(g) **Effective date.** This Order shall take effect immediately,*

(P. D. Reg. 1, Aug. 27, 1941, 6 F. R. 4469, OPM Reg. 3 amended, Sept. 2, 1941, 6 F. R. 4863; E. O. 8629, Jan. 7, 1941, 6 F. R. 191; E. O. 8875, Aug. 28, 1941, 6 F. R. 4483; Sec. 2(a), Public No. 671, 76th Congress, Third Session, as amended by Public No. 89, 77th Congress, First Session; sec. 9, Public No. 783, 76th Congress, Third Session.)

Issued this 19th day of December, 1941.

Donald M. Nelson,
Director of Priorities.

Certified to be a true copy of the original.

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Assistant to the Deputy of Priorities
Office of Production Management.

SPECTACULAR FIRE DESTROYS LARGE SUBURBAN NIGHT CLUB

Large Loss Due to Delay In Calling Additional Aid

By William E. Patterson

FOLLOWING a spectacular fire which broke out from some cause unknown about 7:30 A. M. Saturday morning, November 29th., only a mass of blackened smoking ruins marked the spot of the New Penn Night Club, a large one and two story frame structure located on Pennsylvania State Highway No. 88 at the entrance of Allegheny County's beautiful South Park, and about four miles from the city limits of Pittsburgh, a "hot spot" where thousands of merrymakers have reveled.

When the fire broke out, the owner of the Club telephoned for the Bethel Township Volunteer Fire Company, there being no fire alarm boxes anywhere in the vicinity of the burning building. When the Bethel Township firemen arrived the fire was burning in the kitchen. It was reported that delay on the part of the Bethel Township firemen calling for additional help, was the direct cause of the fire gaining such great headway and destroying the building. It was only after outsiders, living in the vicinity of the burning building, telephoned for additional help, that the Volunteer Fire Companies of Upper St. Clair Township, Mt. Lebanon Township and South Park, arrived on the scene, only to find the building a mass of flames. It was over four hours after the outbreak of the fire before the Mt. Lebanon fireman were notified to respond to the scene of the fire, although they knew that the fire had been burning for a long while.

Scene at Recent Fire in New Penn Night Club

Dancers, singers and jugglers, some of the entertainers, fled while their wardrobes, equipment and musical instruments were lost in the flames. Instruments and musical arrangements of Henry Blauth's band of Pittsburgh, whose members were not staying or sleeping at the club after performances, were all destroyed in the fire.

The owner of the Club, Louis Passeralla, his hands scorched and head cut, was able to save little except a large sum of money which he kept in his room, as he fled from the burning structure. He estimated his loss at $150,000 on building and contents, while firemen declined to give an estimate.

Others who made their escape from the building were the owner's two brothers, his 15-year-old son, the chef, bartender, maid and secretary.

Roaring flames shot upward one hundred feet or more above the burning building, while the intense heat drove backward a thousand or more spectators, who came to the scene from miles around to witness the spectacular sight.

The Bethel Township Fire Company, the first to arrive, responded with a 500 gallon pumper; South Park with a 500 gallon pumper; Upper St. Clair Township with a 750 gallon pumper and Mt. Lebanon Township with a 1250 gallon centrifugal pumper.

When the Mt. Lebanon firemen arrived in command of Chief James E. Wood, their large American La France pumper was hooked up to a fire hydrant with 130 pounds pressure located directly across the highway from the burning building and nine lines of hose, seven 2½-inch and two 1½-inch, with 1400-feet of hose in service were stretched from the four outlets on the pumper to the fire by the use of two-way siamese connections and reducers. The two 1½-lines of hose belonged to the Upper St. Clair Township Department. With nozzle tips ranging from 1-inch down to ½-inch and all lines in service, a pressure of 160 pounds was maintained at the pumper. All of the Companies above have modern up-to-date pumpers.

School Destroyed by Fire of Unknown Origin

The entire personnel of the Amsterdam, N. Y., Fire Department was called out in the early morning hours of November 27 to fight a fire in the Fourth Ward School. The blaze, which evidently originated from some unknown cause on the third floor of the building where twelve N.Y.A. pupils have lately been engaged in woodworking, swept through the third and fourth floors, the roof falling while the flames were at their height. Whatever the fire may have spared on the first floor was ruined by the tons of water directed upon the blaze from seven fire streams during the six hours the entire department worked to bring the blazing inferno under control.

The first alarm was by telephone at 2:56 o'clock and at 2:59 o'clock a police officer rang the box. Pumpers 1 and 6 and the aerial truck responded to the telephone call, and the No. 3 pumper, the No. 4 service truck and the No. 5 combination joined these companies when the box was rung.

At 3:19 o'clock Fire Chief Matthew J. Kavanagh sounded a general alarm, calling out the entire department, and all firemen who were off duty were summoned from their homes.

While the fire was at its height the firemen received a call for help from a dwelling house a short distance away from the fire. Sparks and embers from the burning building had fallen upon the roof of this house and had created a brisk blaze. One of the lines in use on the school fire was directed upon the roof, and the fire extinguished before it could spread to other parts of the building.

The building which was a total loss was appraised by the insurance men who carried policies at $48,000 and the contents at $2,700. This figure did not include the N.Y.A. equipment on the third floor.

Bell Named Inspector of Army Firemen

Arthur F. Bell, former Chief of the Camp Upton, N. Y., Fire Department, has been named Inspector of Army Fire Departments of the First, Second and Third Corps Areas. Chief Bell will supervise instruction of all Army fire department personnel in that large territory.

Prior to his service in the Camp Upton Fire Department, Chief Bell was Supervising Instructor of Nassau County fire departments for five years.

Under his direction, the Camp Upton Fire Department was increased from nine men to nineteen, and three modern fire trucks were added.

Slattery Named Chief at Rochester

John A. Slattery was promoted to the office of Chief of the Rochester, N. Y., Fire Department to fill the vacancy created by the retirement of Chief George N. Fletcher last August.

Chief Slattery began his career as a fire fighter on December 1, 1909. His rise through lieutenant, June 1, 1914, and captain, July 1, 1918, found him the city's youngest battalion chief, on September 22, 1923, at the age of thirty-five. He became deputy chief on April 16, 1938.

Louisiana to Organize Fire Defense Units

Sponsored by the National Defense Council of Louisiana, thirty cities of that state will proceed with organization of volunteer fire fighting units, and training will be concentrated on wartime defense activities such as first aid, handling of apparatus, fire streams and other equipment, and extinguishment of incendiary bombs.

Novel Christmas Greeting

The above very novel Christmas card was received from Chief Richard A. Magee of Truro, Mass. It bore the inscription, "Chief and Nelle Magee wish you a very merry Christmas and a happy New Year."

New "Fire" Wagon Joins the Department

The fire department of San Luis Obispo, California, has, in addition to usual fire fighting equipment including hook and ladder truck and hose apparatus, a machine which produces fire.

This "fire producer" is an engine driven Lincoln electric welder. The "fire" (10,000 degrees hot!) which the welder produces is used to melt metal and fuse metal parts together for maintenance work in the department and for installation of water lines.

The arc welding machine can be seen in the accompanying illustration in its appointed place between the hook and ladder and hose truck in the San Luis Obispo fire department.

SABOTAGE BY WAR GASES SAID TO BE A POSSIBILITY

Use of Gases in Places of Public Assembly, Subways and Industrial Plants Considered a Threat

By James J. Deasy

Chief State Instructor, New York State Fire Defense Training Program; Instructor in Delehanty Institute, New York City

NOW that the United States is in the war, it may be anticipated that acts of sabotage will materially increase. Heretofore the word sabotage carried with it the main implication of the starting of fires to delay, if not entirely stop, production of war materials. Little or nothing has been thought of the use of war gases, i.e., mustard gas and similar chemical preparations, in this activity of the saboteur.

With considerable thought and planning given to solve the problems of prevention and extinguishment of fires of incendiary nature, we are fairly well equipped and drilled to take care of such fires in industry. It must be realized that the more intensified our production of war material, the greater will be the efforts of the Axis powers to devise new and more complicated means to stop production. With plant fire brigades, plant employees drilled and familiar with the tactics and strategy of fighting fires, the installation of sprinkler and standpipe systems, the general use of first aid appliances, adequate fire alarm systems and water supply, fires in production occupancies will, if quickly discovered by mechanical devices or watchmen, create little or no headaches to fire departments and plant brigades to control or extinguish.

But the use of gas is a different matter. Visualize the dispersal over a large floor area in a plant of just a pint of mustard gas. The fire department can do little other than to institute decontamination operations. This takes time, and the plant is absolutely untenable until such decontamination is completed.

Let your imagination conceive the conditions that would ensue at the breaking of a vial of mustard gas in a crowded subway train at peak traffic hours. Imagine if you can, a group of saboteurs getting to the upper levels of structures at Broadway and Forty-Second Street in New York, or similar traffic centers throughout the country, and releasing from windows containers of mustard gas at peak traffic hours. The panic, confusion, casualties would be far beyond the imagination.

What has been done about this? Has it been anticipated? What precautionary measures have been taken? None that I know of. It has been advanced that mustard gas is hard to secure, but this is not the case. Germans are especially noted for their chemical abilities. The formula for mustard manufacture is no secret. All nations have plentiful supplies. It must be borne in mind that sabotage today is not conducted on the impulse of the moment. It is an organized procedure directed by specialists along that line. That was proven in the First World War. And the saboteurs have improved their methods.

It is relatively easy to offset the use of gas as a means of sabotage. Plants should investigate employees previous to their employment. Drills should be held and decontamination agents and equipment should be available so that if and when a gas sabotage condition is encountered, operations of decontamination can be instituted at once by trained crews. The cost of decontamination material and equipment is relatively small, but instruction in the use of such material is the means of effectively combatting a gas condition. Instructors well versed in the properties of war gases and the effective means of decontamination, could instruct plant employees or others workers in the proper procedure to follow.

This is not a half-hour job, nor is it one that should be forgotten after the employee finishes his training. There

Electric Welder Stationed Between Fire Trucks in Fire House at San Luis Obispo, Calif.

should be periodic drills in this important work of neutralizing war gases. The decontamination agent should be periodically tested to see that it has lost none of its properties. And more than that, the storage place should be carefully guarded so that the saboteur cannot anticipate its use and therefore destroy either the decontamination agent or the clothing and equipment necessary to apply the chloride of lime that is advocated by the Chemical Warfare School of the United States Army.

The writer knows that the use of gas masks by workmen in factories has not been considered to any great extent. This also is another point to think about.

It is difficult to awaken plant officials to this menace. They seem to feel that such considerations give way to unnecessary alarmist thoughts and activities. I do not wish to be considered an alarmist. I would like to be known as an alarm clock, a human alarm clock which rings out the potentialities of sabotage and its methods.

We may anticipate new methods of sabotage to offset our preparations against the usual measures employed by the saboteur. This is a game, a deadly game, between institution of the acts of sabotage and the solution of the problems such acts create. Once we nullify one method, the saboteur will devise another and more complicated one.

It might be advanced that such statements as the writer has released are giving hints and suggestions to the enemy. This it not the case, however. The saboteur has brains as well as we. He has ideas and has made a detailed study of sabotage procedure. In fact, he has given more study and preparation to such methods than we have had occasion to consider.

I have only touched upon the use of gas in production and traffice centers. But what about the use of the "calling card" in our heavily forested areas? What about its use as a means of starting fires in our grain fields, especially during a prolonged drought?

Much of the foregoing applies to those concerns and areas along the seacoast, where sporadic air raiders with incendiary and possibly gas bombs might operate. Some will say that gas has not as yet been used in the war. That is true but it must be borne in mind that when the enemy comes to a realization that his offensive efforts regardless of the strategy and tactics employed are futile, he will unquestionably resort to every means, military and other, at his command. This statement can be proven by some of the methods employed to date, such as incendiary bombs with explosive reactions, oil filled bombs, high explosive bombs to deter or prevent firemen from operating. Desperation and vision of defeat will be the factors to start the use of gas and possibly other and more devilish warfare methods. Little or nothing has been brought out as to the manifold uses of the incendiary pencil that proved efficient in the last war.

Regardless of what intricate plans for production are devised, regardless of what our hopes are for increased production in the coming year, one disastrous fire leaves them all undone until such time as rebuilding or reproduction of vital machinery and tools can be completed. The use of gas as a means of sabotage would mean a serious delay in production, if not stop it entirely, for a considerable period.

Were the enemy saboteurs to resort to the use of gas for stopping production or for the creation of panic and casualties, we must be prepared to meet the problem. It can be met and can be conquered but not by talking about it. There is altogether too much lip service regarding protection against and prevention of fire. There are too many idealists, and those not experienced in handling this problem, sitting in the seats of the mighty. Economists, production management individuals or groups cannot solve it, or if they can, to date they have not made much headway. Fire chiefs and fire engineers combined with instruction such as given at the Chemical Warfare School at Edgewood, Maryland, can solve the problem. They are doing their best along that line, but we must have more of that type of instruction. We must have more of such schools. We must have more discussions and meeting of fire chiefs, fire engineers, and chemists. We must have more comprehensive plans that will be applicable with few changes to any situation or locality. Those who are interested and seeking such information, are confused and bewildered by the tremendous amount of literary releases, one overlapping the other and often contradictory. Some of these releases have a wealth of good suggestions; others are too fantastic and impossible. There must be a happy medium. This medium can be brought about and carried out if those individuals and groups designated or competent to handle the situation will meet periodically to determine the necessities of the situation.

Fire Fighters Join Crusade for Traffic Safety

"Wastage of human and material resources of the nation through accidents must be prevented," the President of the United States proclaimed recently.

In San Diego, California, firemen answered the President's challenge and called their Citizens' Traffic Council and asked what they could do to assist. Traffic safety, they were told, could be accomplished by the creation in each citizen's heart of the "will to have safety," and they immediately set about creating this will by word of mouth and deed!

The Chief of the Fire Department, John E. Parrish, started the ball rolling by actively participating in safe driving tests along with other civic leaders from different parts of the city. In casting about for means of actively working for traffic safety, firemen asked if they could serve as jurors on a half hour radio program broadcast each week by the Citizens' Traffic Council. In this program each week an authentic traffic accident case is broadcast from KFSD, San Diego's leading radio station.

The police traffic investigator, who actually made the investigation in the case being presented, testifies before a judge of the municipal court and a jury of citizens to the actual facts of the case and the jurors express their opinions individually.

The firemen proved by their intelligent reasoning in their deliberations as jurors a fact that has long existed but infrequently recognized, that firemen must know the law and must be capable drivers to herd a ten thousand dollar thundering piece of fire apparatus through modern traffic.

LYLE D. GUTHRIE,
Secretary, Citizens Traffic Council,
San Diego, Calif.

Graves Heads State Line Firemen

Chief L. W. Graves of the Rockton, Ill., Fire Department was re-elected President of the State Line Firemen's Association at a recent meeting of the organization held in Milton, Wis.

Others officers are: E. P. Sorenson, Marshall, Wis., Vice President; Raymond Worpel of Marshall, Secretary; L. W. Foreman of Milton Junction, Wis., Treasurer; and Henry Schieldt of Edgerton, Wis., Director for three years.

The Association is composed of firemen from Winnebago County in Illinois and Rock, Walworth and Dane Counties in Wisconsin. Meetings are held monthly in cities represented by membership. Instruction in firemanship is given and mutual problems are discussed.

Firemen Act as Jurors on Radio Broadcast

Left to right are Herman Shawver, Thomas Works, Glen Pierce, Louis Lachein, Claude Shaffer, Eddie Baum, Judge Clarence F. Terry of the Municipal Court, City Councilman Ernest J. Boud, Traffic Investigator William Thein, Kenneth Raub, Emmett Goodbody, Harley Cox, Thomas Szalinski, John Gibson and Roland Thomas.

SAN FRANCISCO FIREMEN PREPARE FOR AIR RAIDS

Firemen on 168 hour week for Duration of War Emergency

By Bob Greenock

SAN FRANCISCO's fire department went on a wartime basis a few moments after war came to the United States with Japan's unprovoked attack on Hawaii and other outposts on December 7.

Ordered by Chief Charles Brennan, a 10-7 signal was struck over the alarm system, "freezing" men on duty to their posts and calling back all off-shift men for duty until further notice. Chief Brennan later said men would be allowed time off for meals if the 168-hour week became a necessity for the duration of the emergency.

Chief Brennan also immediately ordered into service all available relief apparatus. A pumper was placed in each house where there had been none before, and double pumper companies were established in the quarters of Engines 15 and 48, in the Japanese section and in the shipbuilding yards' district, respectively.

Training for Civilian Corps

Citizens who had been signing up for Civilian Defense were immediately started on a course of training. The Fire Department took over the task of instructing auxiliary firemen; the Police Department began instruction of those who signed for the auxiliary police and as air raid wardens and the Red Cross began instruction of rescue and first aid squads.

Supplies of first aid materials were immediately moved to strategic points. Heavy rescue equipment was placed, ready for instant use. Two new ton-and-a-half pumpers, capable of delivering 500 g.p.m. at 120 pounds pressure from a pump mounted 'midships, are being used to train the auxiliary firemen.

Training of volunteers, despite lack of equipment, is being rushed. Newspapers and radio stations cooperated with the Fire and Police departments, federal agencies and the armed forces in impressing upon the public the seriousness of the situation.

Three new signals have been established for the Fire Department due to the emergency. The signal 10-7 is struck over the system when a "blue" or alert warning is sent out from the Fourth Interceptor Command which has a filter station in San Francisco. This signal is for the benefit of police and firemen and other defense agencies only and does not go out to the general public. The signal 10-8 is the "red" of blackout signal and all firemen go to their posts, standing by for immediate response. The signal 10-9 is the "all clear."

Lack of air raid warning equipment presented a problem. The only big siren in the city was on the Ferry Building and could not be heard outside the downtown section and financial district. A temporary solution was found by using the two sirens located on the Islais Creek and Third Street bridges together with the Ferry Building siren, and by having fire and police apparatus move into the street and blow their sirens.

Since then, eight powerful sirens, ordered from Chicago, have arrived and have been strategically located in various sections of the city. The signal for an air raid is a fluctuating tone, or warbling, for two minutes, repeated several times.

City trucks, aided by private trucks belonging to scavenger companies have distributed free sand throughout the city to be used in combating fire bombs.

The newspapers have published information released by the Office of Civilian Defense, covering what to do in an air raid, how to handle bombs and fires started by them, the location of all emergency hospital facilities, how to combat poison gas, what may be done and not done during a blackout, etc. The Board of Supervisors passed a "blackout ordinance," seeking to rectify conditions that showed up in San Francisco's first blackout, the Monday night following Japan's attack.

This writer, employed by a San Francisco newspaper, was ordered to go to the roof of the publication building a few seconds after the report was received that "planes were over Daly City," a small suburban community contiguous to San Francisco, to "see if bombs were falling," and to determine the extent of the blackout.

Blackout Slow in Starting

There was no evidence of planes overhead, or bombs falling. But neither was there any evidence of a blackout. Neon signs blazed; store windows, decorated with Christmas trimmings, were lighted as usual; the majority of street lights were on; a huge sign at least 50 feet high and atop a tall downtown building blazed high in the air, ironically enough, with the word "SAFE;" street cars moved; buses traveled with full loads of passengers; the sodium vapor lights on the Bay and Golden Gate bridges blazed brightly. Only evidence of a blackout anywhere was on the military reservations—the Presidio of San Francisco, Forts Scott, Funston, Mason, Barry, Baker, Cronkhite and others in the Bay Area.

Fully an hour later, when this writer was on his way home, lights began to flicker out. Autos moved as usual, but with light extinguished. Then a policeman on a motorcycle rode through the downtown area hollering, "All clear, all clear." In the North Beach section the lights were still out. At the Golden Gate Bridge, on the way home to Mill Valley (north of San Francisco and in Marin County), this writer was warned to extinguish his lights. The bridge at last had been blacked out as was the tortuous Waldo approach, a winding, twisting grade over the "hump" from the north approach of the bridge that leads to the little towns north. It was a dangerous ride, for drivers coming into town drove in total darkness, then became panicky for a moment and flashed on their brightest lights for an instant blinding those drivers approaching them in the dark.

All that has been changed now. There is an ordinance covering blackouts and it has teeth in it. It was hastily drawn and passed after the first blackout failure.

Chief Brennan has asked the citizens to cooperate in preventing and fighting fires and the response is now magnificent. Only 3,000 persons had registered for Civilian Defense in the several weeks before the war. Now there are more than 50,000 registered. The various agencies are swamped with manpower. The problem now is to train them.

Hazard of Large Fires

San Francisco has a high conflagration danger because, as one fire official once remarked, "the city is built to burn." Most residences are of wooden construction. The so-called Western Addition, that section spared in the 1906 disaster by the heroic efforts of firemen and army troops using dynamite, is full of large rooming houses and flat buildings built of wood. Wood is used because it is plentiful and because it is resilient, a major factor in an earthquake zone.

The city bristles with Army, Navy and California State Home Guard (organized to replace the National Guard) patrols. First company to use sandbags on the front of its building was the important Pacific Telephone and Telegraph Company. Workmen stacked them two stories high.

The FBI has conducted a school to teach policemen how to combat sabotage. They have rounded up aliens. The Japanese district was roped off and all aliens questioned. Alien firms were "frozen" by the Treasury Department.

No sabotage has been reported, although during one of the air raids, a woman took moving pictures of mysteriously blinking lights, thought to be signals, and turned them over to the FBI for investigation.

Special instructions have been issued for conduct in schools, hospitals and public institutions during air raid warnings, all after the pattern laid down by the OCD and after consultation with Chief Brennan of the Fire Department and Chief Dullea of the Police Department.

Home, flat and apartment dwellers, as well as owners of plants, stores, factories and other business institutions have been busy buying material or using material already on hand with which to black out their establishments. After the first blackout, stocks of flashlights and batteries were exhausted. Heavy black paper and cloth stocks ran low before they could be replenished.

San Francisco, a city with a tremendous number of homes in ratio to other buildings, has made the best of a situation that has been thrust upon it. People, formerly apathetic, are now fully aware of the danger. There is a calm sort of determination to cooperate, to go all out.

FIRE APPARATUS OBSOLETE SAYS MASSACHUSETTS OFFICIAL

State Chiefs Hold Large Defense Meeting and Hear Warning by Co-ordinator Percy Charnock

By Alton H. Blackington

MORE than 500 fire chiefs from every part of Massachusetts packed historic Ford Hall on Beacon hill on December 11th to be told that 38.2% of the Commonwealth's fire fighting equipment was obsolete.

This startling statement was made by Percy Charnock, State Fire Co-ordinator. He complimented the chiefs on work already done in some communities but gravely announced that in many towns and cities little or nothing had been accomplished in the way of civilian defense and that the greatest need was for additional men in the auxiliary forces plus needed additional apparatus and equipment.

"In most places we need three times the amount of equipment that we would use in peace time." He added that "If you have a defense plant in your vicinity you may need as much as five times your regular equipment. The responsibility for protecting the homes and lives of the citizens will be placed squarely upon your shoulders," he said grimly.

"In many towns the apparatus is fifteen to thirty years old, and such antiquated equipment cannot be expected to stand the strain of winter work and wartime conditions. Between fifty and seventy-five per cent of some city equipment is obsolete and if we are to cope with incendiary bombs and sabotage we must augment our fire fighting forces and materials. I urge you to see that inspections are conducted regularly and that all apparatus is completely overhauled at once. See that you have enough hose for all emergencies. Procure adapters so that your hose will fit the hydrants of nearby towns. Arrange for an all night watch in your stations to prevent sabotage to your own apparatus."

Mr. Charnock was introduced by Fire Marshal Steve Garrity who presided at the unusual meeting. Dean James M. Landis of Harvard Law School, Regional Director of Civilian Defense for New England deplored the apathy of some towns in not setting up defense groups and stressed the need of a centralized source for air raid warnings. He urged the chiefs not to wait for new equipment before they started training the auxiliary forces. "Get your communities to act now. Train your men—all of them—in the handling of incendiary bombs and gas, and remember that discipline is the essence. Act together as units or you will find that you have a mob on your hands instead of a trained force."

Governor Leverett Saltonstall said that towns and cities should make the best use possible of their own resources before asking State aid.

J. W. Farley, head of Massachusetts Commission on Public Safety stirred the chiefs with an admonition to din into the public's mind that we are at war and that great danger lies ahead. "There will be sabotage—perhaps right at your very doorstep," he shouted. "Let us not be caught unprepared. Drill your men constantly. A well trained department is the only answer. The best chief will be the one who has the best trained department. We must have action. This is War! War! War!"

Fire Commissioner William A. Reilly told of Boston's work in fire defense and announced that additional hose and helmets had been ordered for the large auxiliary force recently organized. He said that no community could handle a number of major fires at once without mutual aid, and he promised that Boston would lend that aid if the need should come.

Major General Daniel H. Needham, Chief of the Protection Division of Public Safety predicted that poison gas and incendiary bombs might be expected. "We have every reason to believe that the New England coast will be bombed and we must be prepared to handle the consequences. We have every reason to expect sabotage. Every man, woman and child will want to know what to do in these emergencies. We must have trained men and women to advise and protect them."

General Needham told of the casualities in the London Fire Brigade and among air raid wardens and described the system that will be used in Massachusetts for sending out the air raid alarms.

"One bomber," he said, "can carry as many as 2,000 incendiary bombs. If the enemy drops a handful of these in Dorchester, some more in Cambridge, Charlestown and other parts of densely populated areas, we may have fifty to a hundred bad fires going all at once in Greater Boston.

"There must be men and apparatus to handle such an emergency. We cannot assume that there will not be a bombing tonight, tomorrow or next week. This is the most terrific problem ever encountered by the American people. Fire is your job and you will be expected to have all the answers. Go back to your communities and tell the citizens and officials that you have got to have the necessary equipment to handle these terrific war-time problems."

Seated on the platform were Chiefs William Mahoney, President of the New England Association of Fire Chiefs, Selden R. Allen of Brookline, Daniel B. Tierney of Arlington, Samuel J. Pope of Boston, John W. O'Hearn of Watertown, Major Johnson of the War Department and Lt. Commander George Mansfield, Fire Marshal of the Charlestown Navy Yard.

Fire Prevention Poster Distributed to Industrial Plants

A number of serious fires have occurred in defense plants during the past year. Prevention of such fire damage is of the utmost importance to the defense effort. The purpose of the above poster, recently distributed by the Associated Factory Mutual Fire Insurance Companies to their insured industrial properties, is to call attention to fire's serious threat to production. Although emphasis is properly given to protecting plants against sabotage, the costly fires which have thus far occurred have been due to ordinary carelessness, inadequate employee training, or lack of necessary safeguards.

This was one of the largest gatherings of Massachusetts Fire Chiefs ever held and the 500 chiefs learned much from the "straight from the shoulder" talks, given by the officials and experts. A decided increase in the auxiliary forces and civilian defense work is expected as a result of the gathering.

Five Alarm Fire Sweeps Warehouse

With roaring flames that were visible for miles around, a spectacular five alarm fire on November 8, completely destroyed one large two-story concrete block and frame building, and completely gutted another, a large two-story brick structure of the Kress-Cravetz House Moving Corporation in the extensive automobile section of Pittsburgh, Pa., and extended to two other large structures occupied by the White Motor Company and the Hertz Drivurself Stations, Inc., before it was brought under control by the quick and efficient work of thirteen fire companies called on five alarms.

The fire broke out from some cause unknown in a pile of heavy creosote soaked timbers in a large storage yard used by the Kress-Cravetz Company for storing their house moving machinery and equipment. It quickly spread into the rear building through the basement windows and doors. This building was completely destroyed. It then swept into the adjoining building, only the four brick walls remaining after the fire had done its work.

The first alarm was sent in from the street box, a short distance from the burning buildings at 6:24 P.M., by the

night manager of the White Motor Company. After he turned in the alarm, he began the removal of trucks from the White Company garage.

When the first alarm companies arrived on the scene, the fire had made great headway, and the flames were soon through the roof and roaring fifty feet or more into the heavens.

The first alarm was quickly followed by the second at 6:30, the third at 6:41, the fourth at 6:45 and the fifth at 6:47 P.M., which brought ten additional companies to the scene. A force of sixty-eight firemen fought the blaze.

Hard, efficient work on the part of the firemen under the direction of Chief Phelan and his chief officers saved the buildings of the White Motor Company and the Hertz Drivurself Company from destruction.

The White Motor Company's building, separated from the burning house moving structure by a three-foot alley, had all the steel window frames and sashes warped and twisted and glass broken by the intense heat. A small section of the roof was set afire.

The building of the Hertz Drivurself Stations, Inc., separated by a twenty-foot alley from the burning structure, had all the windows burned out of the alley end of the structure.

Firemen dragged lines of hose into the White Motor Company's building and the Hertz Auto Service building and by hard work kept the flames from doing any serious damage.

Captain Orville Bates, James Moore and Sidney Ferguson, all of Engine Company 58, were slightly burned on the face when a tank of sulphuric acid exploded during the fire.

New Tank Trucks in Service in San Angelo

Two new tank trucks have recently been put into service in the San Angelo, Tex., Fire Department.

Tank trucks have been used in San Angelo for twelve years because of the sparsely settled suburbs with their hydrants spaced far apart. Sometimes a line 500 to 1500 feet had to be laid, with the result that the objective was often a total loss before connections could be made. To cope with this situation tank trucks were built.

The new trucks have a capacity of 600 gallons, with a 200 gallon rotary pump, and water is available as soon as the truck reaches the fire. The results have been very satisfactory and if the fire isn't extinguished, it is checked until the department can get a line laid.

The territory covered by the San Angelo Fire Department includes ranching territory which has a lot of grass fires. The trucks are built to move under their own power and pump at the same time.

These trucks are equipped with 250 feet of 1½-inch hose, 200 feet of 1-inch, and have all auxiliary equipment. The trucks were not built to take the place of a regular fire pumper, but have reduced the fire losses of the city considerably.

Chief Tom Biggs heads up the San Angelo Department.

One of the New Tank Trucks Recently Put Into Service in San Angelo

Waterbury Fire Destroys Two Business Buildings

Two three story buildings in the heart of the business district of Waterbury, Conn., were destroyed by a stubborn three alarm fire that firemen fought for four hours on November 23. All but two of the city's fire companies were called into service.

One fireman, William Mulligan, suffered injuries during the height of the blaze and was taken to a local hospital for treatment.

Fire Chief Thomas F. Cavanaugh said the loss would run into several thousands of dollars. The blaze burned its way through the Rose Shop on South Main Street, a women's apparrel store, and the Central Shoe Store, which leased space on three floors of one of the buildings.

With flames leaping to spectacular heights when the fire was discovered at 7:10 P.M., Chief Cavanaugh, arriving with the first companies, immediately ordered a second and third alarm turned in to call all other apparatus available as well as firemen of the off-duty platoon.

Sounding of factory whistles and an air-raid defense siren to summon the extra firemen was the signal for a flood of telephone calls from excited residents that poured across switchboards of newspaper offices and police and fire alarm headquarters for more than an hour. It was the first time an air-raid siren was sounded in Connecticut for a fire.

THOMAS F. MAGNER

Assistant Fire Marshal for Canadian Army

Staff Major Edward Desjardins, formerly Deputy Fire Marshal in the Ontario Fire Marshal's Office is now Assistant Fire Marshal for the Canadian Army. Major Desjardins were for twenty-five years in the Ontario Civil Service before being called to the Canadian Army a few weeks ago. His enlistment is the fifth from the Fire Marshal's Office of a field staff of nine on duty at the outbreak of the war.

Major Edward Desjardins

Bomber Plant Damaged by Fire

Fire broke out recently in a warehouse of the Consolidated Aircraft Corporation in Fort Worth, Tex., causing damage estimated at $100,000. The fire started shortly after the Army had given newsmen a preview of the world's largest "blackout" defense plant—a factory for the assembly of twenty-nine ton bombers.

The 200 by 50-foot warehouse which was involved was used for the fabrication of air conditioning equipment. It also contained sheet metal and plumbing supplies.

The factory was designated "blackout" because it has no windows.

Fire Prevention Campaign to Be Conducted

In an effort to eliminate fire deaths in Dallas, Tex., and to reduce the fire loss, a civic committee for fire prevention has asked 150 Dallas business firms to conduct a continuous fire prevention campaign in their own plants and in the homes of the employees.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

FIREMEN ASSIGNED TO THEATRE DETAIL

FIREMEN are detailed to theatres in a few of the cities reporting, but in general they are detailed only upon the request of the theatre management. In a number of instances firemen are admitted to any theatre without charge, and thus there is at least one on hand at every performance.

As a general rule, no compensation is made for this work The work is often done by off-shift firemen, but in the majority of cases is done as a regular function of the fire department. Only three cities reported that men detailed to extra work by private parties are compensated by whoever hires the detail. The rate is $5.00 for from one to five hours and $1.00 for each additional hour.

The problem in full appears in the box on this page, while in the box on the following page is the problem that will be discussed in the following issue.

HERE IS THE PROBLEM

1. Do you supply theatre details to theatres in your city?

2. Are these firemen required in theatres by the Fire Department or are they detailed only upon request of the theatre management?

3. Do all theatres have them or, if not, which ones?

4. Does the theatre compensate the Fire Department for the services of the details? If so, on what basis?

5. Are certain members only of the department assigned to theatre detail, or are all members of companies rotated to perform this work?

Discussion of the Question

Thomas J. Phelan, Chief, Trenton, N. J.: Each and every theatre performance is inspected by a detail of the fire department. This is a department rule. The theatre management is not consulted.

The fire department is not compensated for this service, as we feel that it is one of prevention and safety of citizens.

Almost all men in the companies, with the exception of drivers and tillermen, are detailed for this service.

Daniel Carnegie, Chief, Yonkers, N. Y.: The City Charter provides that the Commissioner of Public Safety have a fireman detailed to every theatre at every performance.

Company commanders rotate this detail to members of their company. Some details cover three or four motion picture theatres. At times on the recommendation of the department surgeon, men recovering from sickness and injury are assigned to this work.

Brooks McClure, Chief, Huntington, West Va.: On certain occasions such as bank nights, etc., firemen are detailed by the fire department to the three largest theatres in the city. The men are rotated to perform this work.

Paul Lefke, Chief, Lansing, Mich.: On special occasions upon the request of the theatre management a detail is assigned to theatres. The members of the fire department are rotated to perform this duty.

John Luxembourger, Chief, Santa Ana, Cal.: Theatre details are supplied to theatres upon the request of the management only. Men detailed receive no compensation and consist of off-duty men only.

C. C. Killian, Chief, Fort Worth, Tex.: Theatre details are supplied only upon the request of the theatres. Five of the theatres in the downtown section have such details. The detail is made up of certain members from the high value district.

I believe this to be a valuable detail, in view of the fact that large crowds or assemblies always present a panic hazard in the event something happens; also because stage equipment furnishes fuel if a fire starts in that vicinity. We have had only one fire of that kind here in many years. Only prompt work prevented a large fire and possible injury or death.

Samuel J. Pope, Chief, Boston, Mass.: Details are sent to theatre upon request. If the nature of the performance is such that a fire hazard is present, this department will insist upon a detail.

The theatre must pay $5.00 a man for each performance. This duty is rotated among the members of all companies.

H. Abbot Griffen, Chief, White Plains, N. Y.: Details are sent to theatres upon the request of the management or for special occasions. Men are assigned by the officer in charge. Certain types of men are chosen, and we try to rotate them.

Chris Smith, Chief, Muskegon, Mich.: Details are furnished to theatres which put on stage shows, and are sent by order of the Fire Chief. None are furnished to moving picture theatres. No compensation is made for the services of the firemen for it is part of their duties.

C. C. Styron, Chief, Atlanta, Ga.: We supply theatre details to theatres when requested by them, or when we deem it necessary.

Frequent inspections are made by fire inspectors, and the staffs of the larger theatres are well trained in fire drills. The Bureau of Fire Prevention performs this service, occasionally assisted by members of the department.

S. J. Flores, Chief, Shreveport, La.: Details are furnished by the fire department when needed. This may be at the request of the theatre management or at the discretion of the fire department.

J. Ludie Croom, Chief, Wilmington, N. C.: Theatre details are required by the fire department in theatres which put on road shows and in public assembly halls. Moving picture theatres are not included.

All members of the fire department, with the exception of the officers, are assigned to theatre detail.

Gustav Anselm, Chief, Wyandotte, Mich.: Details are not assigned to the various theatres unless we receive complaints, or unless the management of the theatre requests one.

Bernard J. Reilly, Chief, Ithaca, N. Y.: Firemen are detailed by the fire department to theatres. No compensation is received, and the members are rotated.

George W. Hisscok, Chief, Port Huron, Mich.: Details are supplied to theatres by request or when it is believed necessary.

All members perform this work.

Walter S. Blanton, Chief, Savannah, Ga.: Theatres in Savannah are required by the Fire Department to have a theatre detail.

When stage shows are given, one extra fireman is assigned to the stage.

All members of companies rotate to perform this duty.

John J. Gilday, Chief, Hoboken, N. J.: Theatres are required by law to have a detail on hand at each performance.

Men who have been injured and are unfit for regular service are given this work.

Fred W. Cordes, Chief, Maplewood, N. J.: We have one theatre in Maplewood, but it is required to have a fireman on duty during performances. All members of the department are detailed in rotation.

Frank P. Walsh, Chief, Hackensack, N. J.: Theatre details are supplied to all theatres in our city. This is a requirement of the fire department. All members are rotated to perform this work.

August Schmidt, Chief, Rock Island, Ill.: Theatre details are supplied to theatres upon the request of the management.

B. L. Warlick, Chief, Jackson, Tenn.: Firemen are supplied to theatres upon request of the management. The men assigned are rotated.

The theatres in Jackson admit firemen free.

W. E. Jackson, Chief, El Paso, Tex.: Theatre details are supplied by the fire department on the request of the theatre manager. All members are rotated to perform this work.

W. O. Blackwell, Chief, Spartanburg, S. C.: Theatre details are required by the fire department in theatres on special occasions. Then certain members of the department are assigned to this work.

G. A. Goodin, Chief, Muskogee, Okla.: Firemen are detailed only upon request of the theatre management for regular shows. At all shows for children, two firemen in uniform are detailed. Firemen have free access to all shows, and there is always one or more in attendance at each performance.

Thomas A. Qualey, Chief, Medford, Mass.: Firemen are not required in theatres and are only detailed upon the request of the management.

All men detailed to extra work by private parties are compensated by whoever hires the detail. The rate would be $5.00 for from one to five hours and $1.00 an hour after five hours.

The extra detail is divided among all the members of the fire department.

Edward T. Rose, Chief, Wheeling, West Va.: We do furnish details of firemen whenever the theatre management requests them, or whenever we feel that an overcrowded condition exists. There is no compensation.

Picked men are delegated to do this work. They must be men who are adept at handling crowds and who are trained in first aid work.

A. McC. Marsh, Chief, Columbia, S. C.: The theatres of Columbia are visited at intervals, once or twice a day, to see that the rules and regulations required by the fire department are carried out by the ushers, projectionists, managers and other employees of the theatres. It is a fire department requirement that these theatres be visited by firemen. Certain men are detailed for this work.

L. L. Petrey, Chief, Mobile, Ala.: We only detail firemen to the various theatres when they have some special occasion. They do not receive any compensation for this special assignment due to the fact that firemen are permitted to go to all the theatres in the city free of charge when in their uniform.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

1. Do you require fire alarm boxes at schools, theatres, and other places of public assembly?

2. Are such boxes connected to alarm systems of the buildings, or are they independent of these systems?

3. If such boxes are not connected to the building alarm systems, do you believe they should be?

4. In your opinion, what are the advantages or disadvantages of interconnection of such private alarm systems to the municipal systems through master boxes?

J. F. Healy, Chief, Denver, Colo.: Theatre detail is provided at all shows in the City Auditorium.

Firemen are required in theatres during the presentation of any stage show where movable scenery is used. During such shows the theatre management is required to compensate the attending firemen. Usually a retired man is employed for this purpose.

The theatre manager compensates the firemen at a rate which is usually $25.00 weekly. Firemen so employed are first recommended by the Chief of the Department.

Certain firemen are detailed from the fire department by the Fire Chief to all city-owned theatres or buildings where a show or any public gathering is being held.

C. J. Henry, Chief, Lexington, Ky.: We do not have a theatre detail. All theatres are inspected every week on Saturday. When theatres held bank nights we sent a detail on occasions when they had a large attendance. Bank nights have now been discontinued by state law.

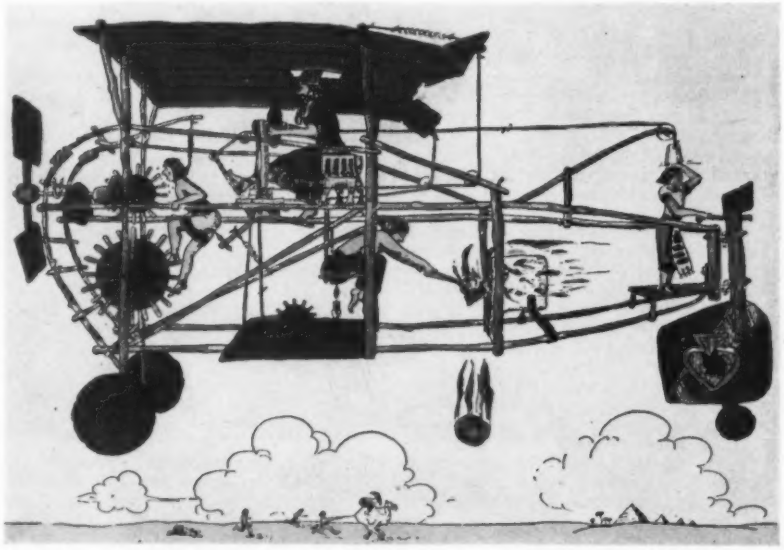
William L. Ryan, Chief, Dubuque, Ia.: The fact that all our theatres are of the moving picture type does not require an assignment during performances. Our Fire Department Inspector makes a day inspection once each week when the theatre is not in operation. The inspection consists of a general examination of the building, including tests of fire curtains, exit locking devices, exit lights, moving picture machines, fused shutters in booths, etc.; or work that cannot be very well performed during time of performances. Officers of various companies are assigned to theatre detail in their company districts, there being no definite number of times each week for such assignments. This depends largely upon the extent of patronage of each theatre. Such detail, however, is normally three times a week and during Sunday and night performances. Our department assigns firemen to all large public assemblies.

There is no city ordinance requiring this detail. It is simply a matter of public safety.

The city Building Commissioner is responsible for the general condition of all theatres in the city, all theatres being required to receive an annual license from the Building Department. The Building Commissioner is supposed to inspect each theatre before the license is issued and quarterly thereafter, the license fee being the only compensation required for services.

H. G. Putnam, Chief, Winona, Minn.: We do not supply theatre details. Our state law regarding theatres is strict and complied with.

(*Continued on page* 48)



This Bomber Would Solve the Metal Shortage

With inventors of all nations working feverishly to devise new methods of defense and offense, it would appear that old King Tut-Ankh-Amen had anticipated the modern bomber many centuries ago in a way that would solve our present metal shortage. The above picture was used for the 1942 calendar of the Elkhart Brass Manufacturing Company, Elkhart, Ind.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Capacity of Hose Lines

To the Editor:

Thanks for your help in answering my problem in the November issue of FIRE ENGINEERING. In one part of my problem I asked if hydrant pressure and discharge are known, how do you figure the friction loss between the hydrant and the pumper. Your answer was that a hydrant pressure of 49 pounds will deliver only 450 gallons per minute approximately through a 300 foot line of 2½-inch hose to a pumper. Will you please explain your formula. I tried to copy from some of your past answers to problems involving maximum flow from hydrant to pumper. I don't know whether or not I am on the right track.

Here's how I solved the problem. I allowed 10 pounds inlet pressure. The friction loss is therefore 49 — 10, or 39 pounds for 300 feet of hose. For 100 feet, the friction loss is 13 pounds. Solving for Q (the flow in hundreds of gallons per minute) in the friction loss formula we have $13 = 2 \times Q \times Q + Q$. To complete the square I multiplied each side of the equation by 2 and added ¼ to each side. The new equation is therefore $26 + .25 = 4Q^2 + 2Q + .25$. Taking the square root of the equation I got $5.12 = 2Q + .5$, or $2Q = 5.12 - .5$. Q is therefore 2.31. The discharge is therefore 231 gallons per minute. If I use 39 pounds in the formula I get 412 gallons per minute.

With hydrant pressure at 40 pounds, what is the maximum flow through two 16-foot parallel lines of 2½-inch hose fed into a siamese connection on a pumper? What is the friction loss in each 16-foot line? What is the pressure at the pump?

S.L.P.

Answer: You are correct in your statement that a single line of hose from a hydrant at 49 pounds pressure could not deliver 450 gallons per minute. Our answer, as it appeared in FIRE ENGINEERING, is therefore incorrect.

Even if parallel 2½-inch lines were used from the hydrant to the pumper, a pressure of 47.5 pounds would be required at the hydrant in order to deliver 450 gallons per minute to the pumper. Only 225 gallons per minute could be supplied by the hydrant to a pumper if the hydrant pressure is 49 pounds, and if 10 pounds inlet pressure is required at the pumper.

Incidentally, the error was also called to our attention by George Romaine, of Union City, N. J., another one of the fire department hydraulics sharpshooters.

With regard to the problem you asked, involving two parallel 16-foot lines of 2½-inch hose between a hydrant and a pumper, the hydrant pressure being 40 pounds, our solution is as follows:

Assume that 10 pounds is needed at the hydrant inlet.

Then there will be available for overcoming the friction loss in the parallel 16-foot lines of 2½-inch hose 40 — 10, or 30 pounds pressure.

If 30 pounds pressure is available for overcoming friction loss in 16 feet of hose, it would need 187.5 pounds for a 100-foot length.

Utilizing the formula for finding the flow where the friction loss in 100 feet of 2½-inch hose is given, we have:

$Q = \frac{1}{2} \sqrt{2\ FL} - 0.25$

In the above FL is the friction loss per 100 feet of 2½-inch hose.

Then $Q = \frac{1}{2} \sqrt{375.0} - 0.25$

$= (\frac{1}{2} \times 19.36) - 0.25$

$= 9.68 - 0.25 = 9.43$

$= 943$ gallons per minute

In other words, "Q", measured in hundreds of gallons is 9.43. The flow in gallons is therefore 943 for each line.

For two lines, the flow would be 1886 gallons.

Actually, 10 pounds inlet pressure would not be sufficient to supply this quantity of water to the pumper. Only a little over 500 gallons per minute from each line would be delivered to the pumper at 10 pounds inlet pressure.

In this discusion, it should be pointed out that it is assumed the pressure remains 40 pounds even when the maximum flow is taking place. However, such a condition would be impossible, as the hydrant pressure drops as the flow increases.

Furthermore, a flow of 1886 gallons per minute would be far more than the pumper would require.

The discharge pressure of the pump, of course, would be unknown, as this figure would be widely variable depending upon the layout of the line supplied by the pumper, its capacity, etc.

Emergency Water Source

To the Editor:

I am a member of the emergency board of our town. I am responsible for water supply for fire purposes in the event of broken mains in our water system. The mains in most cases are well supplied with shut-off gates so that water can be passed around the break through other streets. There are sections of the town where this could not be done. In these cases we have hydrants near the river. My plan would be to close the gate between the break and the river, then use the fire pumper at river pumping into hydrant there. I would connect the pumper to one hydrant outlet and a single gate to the other hydrant outlet, open single gate to vent hose from pumper (at river) to hydrant, then as water reaches the hydrant from the pumper close gate slowly at the same time opening the hydrant.

Would this procedure be the one to follow? W.G.

Answer: The plan you suggest for delivering water through a broken main which has been segregated by closing a gate, is very practical. Also, the method of freeing the pipeline of air before pumpers on hydrant start operation. One precaution must be borne in mind, and that is the danger of contamination of public water supply if the pressure from the pumper taking suction from the river is imposed against the closed gate valves. These gate valves might not be tight, and water will get past them and into the balance of the system. If the break is such as to enable the polluted water to pass it, dangerous pollution of the main may result.

However, if the break is complete, and there is no chance of water getting past it into the balance of the system, then there would be little danger because the main from the break to the end would be sterilized before being put into service again, after the break was repaired.

Creosote in Chimneys

To the Editor:

Is there anything on the market that will dissolve creosote in a chimney?

Is there any way of cleaning a chimney that has creosote in it, besides burning it out? H. E. W.

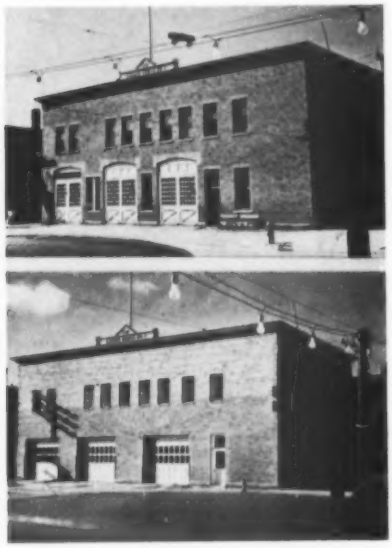
Answer: So far as we know there is on the market nothing that will dissolve creosote in a chimney.

About the only way to remove the creosote is to burn it out, taking the proper precautions that the chimney does not get too hot, nor that fire travels through any crevices to the woodwork adjoining.

Fire departments are faced with the problem of chimney fires, due to the depositing of the creosote within, in certain sections of the country where the fuel used contains a high percentage of creosote. No solution to the problem of preventing such fires in chimneys has been developed, so far as we know.

Fire Station Remodeled

Number 1 engine house in Alpena, Mich., was remodeled recently as part of an improvement program instituted by the local City Council earlier in the year. The old swing doors were replaced by larger overhead doors and the old windows across the front of the building were replaced by steel casement sash windows.



Before and After Views of the Recently Remodeled Station

Other improvements were the replacement of an obsolete 250 gallon pumper over twenty years old with a 750 gallon Type 80 Mack pumper, the purchase of considerable extra equipment for the new truck and the purchase of twelve hundred feet of two and a half inch fire hose.

In addition to the Mack, the department has a 1,000 gallon LaFrance triple combination pumper in service at Number 1 house and a 750 gallon LaFrance pumper at Number 2 station. Reserve apparatus consists of a Reo combination truck, a Ford grass fire truck and a Babcock aerial truck.

Run-Away Box Cars Crash and Burn

Runaway freight cars made an unchecked dash through Memphis, Tenn., and came to a crashing halt in a tangled heap on Jefferson Avenue, right outside the high value district of the city. Four of the six derailed cars turned over on their sides after they broke down a bumper at the end of their track and plunged down a three-foot embankment. An oil tank car loaded with gasoline, which was sitting in the Southern Railroad yards with its air brakes on, was struck by the runaway cars and knocked off the tracks. It was pushed plunging ahead of the runaways, ripping up crossties for some 250 yards. About thirty yards from the end of the tracks and the bumpers protecting Jefferson Avenue, the tank car sideswiped a loaded freight car standing on the tracks, plunged ahead the intervening distance and finally dived into Jefferson on its side. Fire broke out as soon as the car hit the street.

The Fire Department under Chief Irby Klinck was notified and responded immediately, and after an hour had the fire out.

The flaming gasoline flowed down the gutters for nearly a block. Time and again the fire hose which was used to fight the fire and to dispel the gasoline caught fire when the burning liquid struck it.

Six fog nozzles and foam were used on the burning gasoline. Fire streams were used to safeguard all exposures.

The tank car was filled with eleven thousand gallons of gasoline, of which nine thousand gallons were salvaged. Upon extinguishing the blaze, another tank car was driven to the tracks nearby, and the salvage operations begun by pumping the gasoline into the other car on the tracks. This consumed approximately eight hours, with the fire department standing by during the salvaging and during the removal of the car from the street.

$75,000 Voted for Defense in Braintree

By declaring a state of emergency, the Selectmen and heads of the various departments in Braintree, Mass., passed a resolution allowing town leaders to appropriate and spend any money for defense without calling a special meeting.

The Braintree War Board was formed and voted an immediate appropriation of $75,000 for town defense needs.

Of the $75,000 voted at the meeting, Fire Chief Fred A. Tenney sought $58,000. He would use the money for the hiring of ten firemen for the duration of the war, purchasing two pumping engines and two or more portable pumping engines similar to the type used in London.

Police Chief John J. Haney requested one man and Captain William C. Taylor asked for money to buy overcoats for the Braintree Unit of the State Guard which is now on duty.

November Fire Losses

Fire losses in the United States during November were $23,822,000, according to the estimate released by the National Board of Fire Underwriters. These estimated losses, under fire insurance polices, are on an incurred basis, including an allowance for unreported and uninsured losses.

The November losses of $23,822,000 were $373,000, or approximately 2 per cent, greater than the total of $23,449,000 reported in November a year ago. This small increase contrasts with the sharp gains reported for each other month back to February of this year.

The losses in November showed a decline of 25 per cent, or $7,011,000, from those in the preceding month when the Fall River, Mass., rubber plant fire was included in the aggregate.

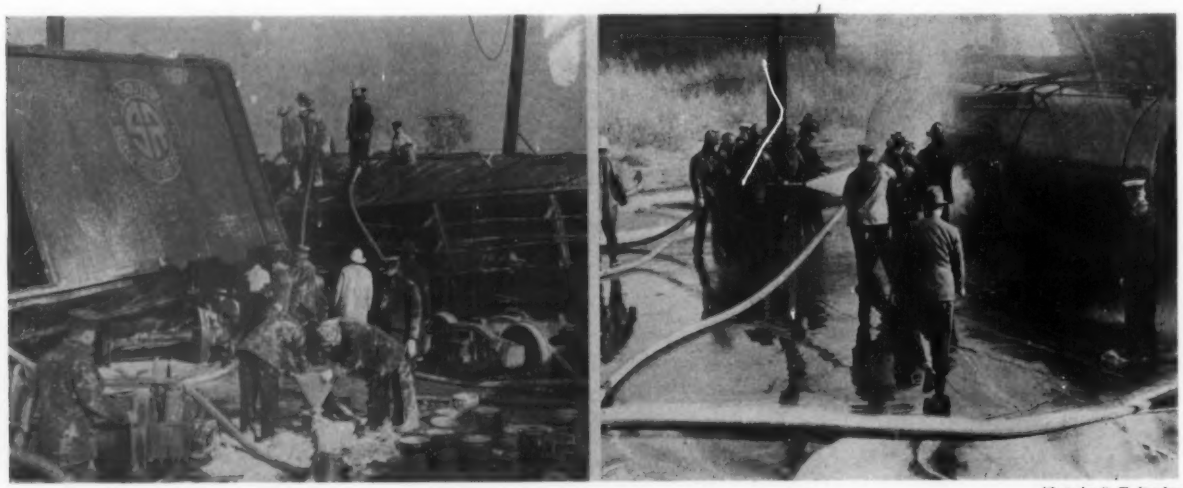


Photo by O. T. Dunlap

Firemen Extinguishing Tank Car Fire

Men at left are using foam; those on right use fog.

Petrey Chief of the Mobile Fire Department

L. L. Petrey was appointed Chief of the Mobile, Ala., Fire Department on October 22, to succeed Chief Emanuel Tapia.

Chief L. L. Petrey

Chief Petrey entered the department on January 17, 1919, and became captain on July 1, 1924. He was appointed drill master on February 15, 1932; third assistant chief on June 1, 1932 and first assistant chief on March 1, 1938.

Chief Branham Dies

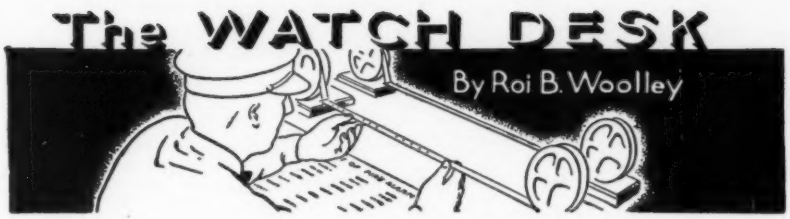
Chief William C. Branham of the Monterey, Calif., Fire Department, died on October 12 from a punctured lung suffered in a traffic crash the day before when he was answering an emergency call in an attempt to save the life of a new born baby at the Alhambra hospital. He was taking the Monterey Park Fire Department's resuscitator to the hospital, wher it was needed because the Alhambra Fire Department's resuscitator was already in use on one of a set of new born twins. Chief Branham was recognized as an expert in the use of an inhalator and the Fire Department maintains a large collection of letters from grateful parents of children he has saved.

Chief Branham had been a member of the Monterey Park Department since 1926.

Cleveland to Purchase Apparatus

Bids have been advertised in Cleveland, Ohio, for the purchase of sixteen pumpers, two aerial ladders, one water tower, thirteen rescue squad vehicles, one high pressure wagon with pumping unit, ten automobiles for the use of battalion officers, three auxiliary radio power units, one portable transmitting station with emergency power supply, twenty air raid warning signal devices, ten thousand feet of fire hose and the necessary couplings and eighty thousand feet of cable.

This equipment is to be purchased to meet the present emergency.



Our inquiring reporter overhauls the firemanic news of the day

"Bed and Bored"

Is a "bed of ladders" a good place to sleep on? We dunno, but the idee occurred to us when we read an item sent by J.W.C. our loyal New England clipper. This yarn tells about the itinerant hotel worker of Lakewood (N. J.) who chose Lakewood's biggest fire truck for a bed and nearly made a serious mistake—in fact, had a rude awakening. Picking the left front running board as his downy couch he slept through a 3 a.m. alarm as other trucks roared out of the fire house, and was discovered just as his 'bed' was about to take to the highway! Firemen said he might have been thrown under the wheels as the truck swung from the fire house. (Nobody's explained how a guy who could sleep through such a racket came to be bedded down in such a spot, in the first place!)

* * *

In a "Jam"

When a fire broke out in home of Frank Williams, East St. Louis (Mo.) there was comedy at firehouse, but tragedy for Williams.

The doors of the firehouse had a "jam" session, all their own and the apparatus could not get out of the building. Fire Chief Andy Snider set forth in his own car, with a tank of chemical, to fight the blaze, but to no avail. Before the firehouse doors could be "unjammed" and the equipment brought to the fire, the home had burned down. Thanks to Newshawk and Buff Johnny Weisberger for this, and the next item.

* * *

'Twas Only a Dream!

The Butte (Mont.) Brothers had put in a tough day drilling . . . up and down ladders, dragging hose, etc., etc. Fireman Michael Sheehan worked the 3 to 11 shift, and got his belly-full of practice.

Downright tired, Sheehan hurried home and hit the hay about midnight This is end of Act. I. Act II began eleven minutes later when the fire station telephone rang. The captain answered it.

"This is Sheehan," said the caller. *"I know I'm late, but I'll be there in a few minutes."*

"But you just finished your shift," said the captain, *"wot's the idee—?"*

There was a pause. . . .

"Guess I must been dreaming," said Sheehan—*"goomby!"*

* * *

Rockefeller's Firehouse

About a dozen of the cognoscenti shot us the clipping about John D. Rockefeller, Jr., now being the owner of the Pocantico Hills firehouse, which he secured at a mortgage foreclosure sale, for $5,000. Seems he'd lent the money for erection of firehouse to village of Pocantico Hills, where he owns large estates, and, as no interest was paid, and no effort made to pay off mortgage, it was foreclosed. From the Pocantico Hills vamps, we understand Mr. Rockefeller will lease back house to village for nominal rent. In past he's always cooperated with the Westchester Vols. in that section of County.

* * *

They're Still Guessing

Answers to the question propounded in this column last month, about Asst. Chief Siller, Yonker (N. Y.) F.D. hearing a report over his F.D. radio of second alarm from a box while his car and he were alongside the box in question, continue to come in. Lieut. Frank Haunfelder, Bayside (L. I., N. Y.) F.D. was first in with his solution. He writes:

"It could be possible that Assistant Chief Edward Siller, of Yonkers (N. Y.) Fire Department, had his radio tuned in to the New York City's Fire Department Radio Station W.N.Y.F. . . . All alarms in New York City are transmitted over the Radio Alarm Circuit and Yonkers might have some streets that meet with the same names as those in New York City. . . . I enjoy reading your column very much."

Thanks, Lieutenant, but you missed it. One of our readers, C.E.M., Toledo, (O.) thinks we're pulling a fast one. No, C.E.M., there's no hanky-panky business about it. The situation actually occurred, and we'll print Chief Siller's own answer in the next issue.

* * *

Brother, Page Mr. Ripley!

This item, from "J.W.C.", gets a merit badge for oddity. It concerns a bottle of water, a mule, the sun and a fire. The bottle of water was hung by Homer Killebrew of Rochelle (Ga.) from a hame on neck of "Old Beck", a mule, for just what purpose deponent sayeth not. But 'tennyrate, Old Beck got out into hot sun's rays, which penetrated the glass, magnified them sufficiently to set the collar-pad on fire. Homer, hearing the commotion, arrived in time to douse the fire with the water from the bottle. Old Beck suffered slight burns and sore throat!

* * *

Embarrassing Moment

In Philadelphia (Pa.) Aaron Gold, driving down street, heard sirens. He slowed down and shouted to passerby *"where's a fire?"* In answer the Brothers from three squad cars, H & L truck, insurance patrol and chief's rigs

all swarmed around his automobile to douse a blazing back seat. Pedestrians, seeing Aaron's chariot aflame had pulled two boxes.

* * *

Doings at 65 Engine!

Willie old livery stable nag of uncertain years, was munching his breakfast of oats on W. 43rd Street, New York City, when he heard the gong of Engine 65, whose quarters are in the block. Mebbe 'twas the Old Adam in him, or the Spirit of Youth, or just plain devilishness, but Willie headed west at the gallop, with his old cart rattling along behind him. Before he was stopped, Willie had led firemen, other truck drivers, a policeman or two, and a mob of plain citizens a merry chase, had dragged James Stewart, 25, who had siezed his halter, against a truck, broken his arm and bruised him generallv. Willie's driver, James Ellis, negro, was collecting junk and left his rattletrap with two wheels lashed together. But the gong at 65's, meant action to Willie and what he accomplished "on two wheels" was plenty.

* * *

Tragedy!

As the fire truck raced by out in Minneapolis (Minn.) four little girls standing in front of their home waved proudly to their father, fireman Arthur Tyczynski. Tyczynski turned to wave back at his daughters,—aged from 3 to 9—when the truck swerved around a corner, and Tyczynski pitched headlong to the pavement. He died four hours later.

* * *

Appreciation—and Good Wishes

At this time it is fitting that we recognize and thank all those loyal "newshawks," "clippers" and "cutters" who have contributed so generously to the "Watch Desk." To them, and to those of our readers who winnow a bit of good out of our chaff, our sincere appreciation, and best wishes. May the New Year bring our Country victory and peace with honor; may it bring the Fire Service better recognition of its place in the American life, and may it bring you the fulfilment of your fondest hopes. That it our wish. And we leave you with this thought from an unknown author: "Every tomorrow has two handles. We can take hold of it with the handle of anxiety or the handle of faith." Let us all have and show the faith that made America great—the faith of our forefathers.

Assistant Chief Welsh Dead

Frederick M. Welsh, former Assistant Fire Chief in the Eau Claire, Wis., Fire Department died as the result of a heart attack on November 17.

When he retired from the department on September 1, 1931, he had been a member for thirty years and five months and had served as Assistant Fire Chief since September 1, 1918. He joined the department on April 1, 1901, became captain of Hose Company No. 1 on August 1, 1906 where he remained until 1914, when he was detailed on fire alarm service.

He is a brother of James P. Welsh, who retired as Chief of the Eau Claire Fire Department a few years ago.

Manufacturers' Announcements

Fire Drill Booklet Issued

The Potter Manufacturing Corporation, Chicago, manufacturers of slide-type fire escapes for schools, hospitals, institutions and industrial plants with high explosive or fire hazards, has prepared a booklet on fire drills which will be mailed free to anyone requesting it.

Western Distributor Appointed

The E & E Manufacturing Company of Detroit, manufacturers of the B-E Evacuators, announce the appointment of the Roy G. Davis Company of Los Angeles, as their distributor in California, Nevada, New Mexico and Arizona.

Mr. Davis, the President of this company, was associated for many years with the American LaFrance Company in California. He left this firm about eight years ago to found the Roy G. Davis Company.

Mr. Davis and his sales force, including George Brewer, Earl Albright, Bob Lawrence and Warren Scoville, invite Western Chiefs to witness a demonstration of the B-E Evacuator in their own town—without obligation.

Twelve New Mack Pumpers Join the New York Fire Department

While hundreds of interested spectators lined the streets of New York recently, twelve de luxe, Type 21,000-gallon Mack Pumpers underwent their final tests and were installed as additions to the city's equipment.

Besides the 1000-gallon high-pressure pumps, these fire engines are equipped with high-pressure turret guns. In their compact hose bodies 2000 feet of hose is carried.

Prior to starting out on their final acceptance tests, the engines assembled at 110th Street and Amsterdam Avenue, the starting point of a twenty mile test run. In addition to the road tests, a special six and one half hour continuous high-pressure pumping test was conducted by the Fire Department officials.

M. S. A. Opens New Canadian Headquarters

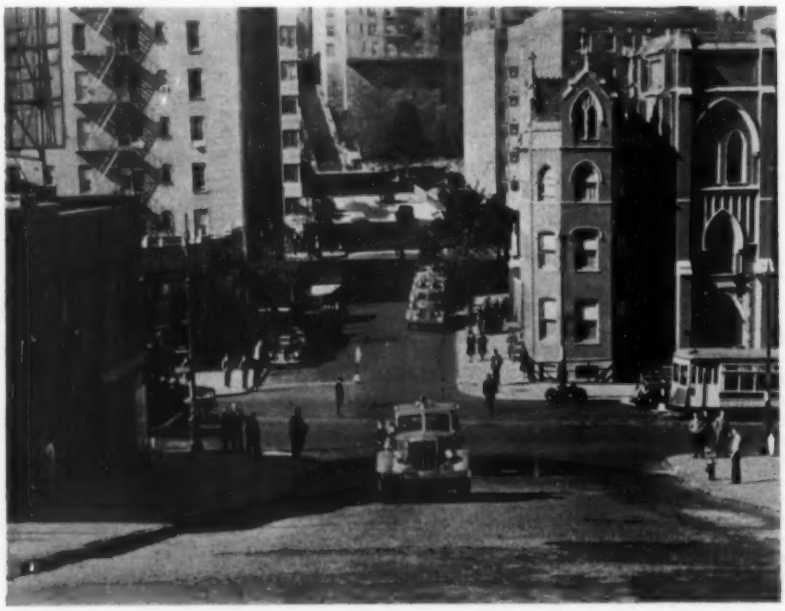
Greatly enlarging its field of service to Canadian industry, Mine Safety Appliances Company of Canada, Ltd., announces acquisition of a new building conveniently located at 139 Kendal Avenue, Toronto, where a broad line of approved safety equipment will be quickly available in meeting the ever-growing requirements of the Dominion's industrial aind mining enterprises.

The Canadian-managed and staffed subsidiary of Mine Safety Appliances Company of Pittsburgh will conduct the manufacture and assembly of certain M. S. A. products while stocking all important items made by the parent company.

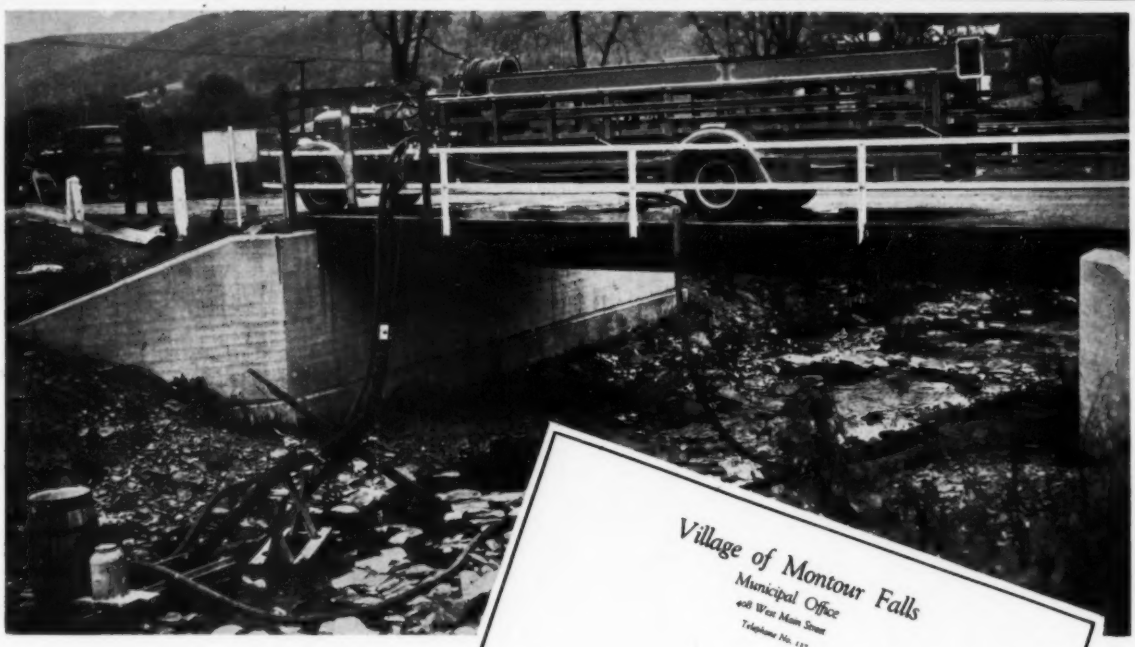
A new General Catalogue of Industrial Safety Equipment has just been prepared by this Company. Copies may be obtained by writing direct to Mine Safety Appliances Company of Canada, Ltd., at the above address.

New Model Evacuator Announced

The E & E Manufacturing Co. of Detroit recently announced a new model Evacuator for use in small towns and on pumping engines located in residential districts. This new model, called the Model CA Evacuator is for use where vertical distances do not exceed 35 or 40 feet. It has been designed and



Mack Pumper Starting on Its Hill-Climbing Test



Village of Montour Falls
Municipal Office
408 West Main Street
Telephone No. 137

Montour Falls, N Y.

Ward LaFrance Truck Corp.
Elmira, New York

October 18, 1941

Gentlemen:

During the recent dry spell, our Village was faced with the serious problem of an acute water shortage from our regular source of supply.

The aid of the Village Fire Department was enlisted. The accompanying picture shows improvised chlorination set-up.

Water was pumped and pressure maintained on the mains by means of our Ward LaFrance 500 gallon Quadruple.

The lift from the open spring was twelve feet. Water was pumped to a hydrant 300 feet away from the apparatus through two 2-1/2" hose lines. Pumping started September 18th and continued uninterrupted twenty-four hours a day for 11 days except for a few minutes when oil was changed. Six additional days of operation, at twelve hours each finally brought the pumping to an end due to natural relief.

Gasoline was added while the apparatus was operating and 2200 gallons were consumed during the continuous run. The speedometer indicated 15,300 miles.

As our industries are working on national defense orders, we are justly proud of our truck in this emergency and realize more than ever its outstanding value.

Very truly yours

Earl J. Unwin
Fire Commissioner

Emergency—

AND HOW WARD LaFRANCE MET A SERIOUS SITUATION WITH UNFAILING

Service!

Think of it! 364 hours or more than 4 weeks of continuous operation. A lifetime demand of a city fire truck, and still as good as new!

WARD LaFRANCE TRUCK CORP.

New York Branch
139th Street and Southern Blvd.
New York City

ELMIRA HEIGHTS **NEW YORK**

built to meet an urgent, specific demand for rugged, compact, time-saving life protection equipment.

The Model CA Evacuator is described and illustrated in the E & E Manufacturing Co.'s new catalog which has just been published. This new literature also pictures and describes the new Evacuator for permanent installation in buildings such as schools, hospitals and other public institutions. A copy of the new catalog will be sent upon request.

Radio Telephone Receiver and Transmitter Announced

A completely self-contained radio telephone combination transmitter and receiver weighing only four pounds, and

The New "Trans-Ceiver"

not much larger than the handset of a "French" telephone, has been announced by the Communications Division of Weltronic Corporation, E. Outer Drive, Detroit, Mich. The unit is being made available to governmental agencies and services, including municipal divisions, public utilities, fire and police departments, railroads and other transportation agencies, as well as individuals, subject of course to licensing by the Federal Communications Commission where required, as well as priority rating.

The built-in battery power supply for the new Weltronic "Trans-Ceiver" under continuous operation has a rating of about eight hours. This is equivalent to from a week to a month's operation under normal intermittent service. The power supply is derived from standard commercial batteries in order to keep battery replacement cost at a minimum and facilitate maintenance of operation.

Although the "Trans-Ceivers" are designed for operation on a single wave length, their frequency range is adjustable from 112 to 300 Megacycles through a simple externally accessible screw adjustment.

In operation, when the toggle switch is thrown into the "on" position, the unit is receiving. To talk through the unit, it is necessary merely to pull the selector finger level down against light spring pressure. Releasing the selector lever switches the unit to receiving again.

Outside Fire Protection Studied

A contract which would guarantee Springfield, Ohio, Fire Department service to the aged, to the ill and to children in public institutions beyond the city limits was under study of the Clark County Commission.

As arrangements now stand, the Springfield Fire Department is under no obligation to respond to alarms at any of the three institutions. The department, in fact, has a policy against rural runs on the ground that members of the department forfeit their liability protection in the event of an injury when they are beyond the city limits.

Under the proposed agreement with the department, the county would be charged $100 for the first hour the equipment is used, and $75 for each additional hour. The County Commission also would be required to pay $25.00 a year for each institution for a $50,000 bond covering possible injury to firemen.

New Rescue Belt Aids Firemen

Rescuing a fair damsel from a burning building will be all in a day's work for the Monrovia (Calif.) Fire Department with the addition, as standard equipment for each member, of a new safety belt developed by Fire Chief Roscoe Cassity.

The belt, consisting of a large loop of heavy web belting on which there is a sliding metal hook, is placed around the back of the victim and brought through under his arms. The fireman then places his arms through the extending loops and lifts his subject like a knapsack. This method of carry leaves the firemans hands free for climbing.

The metal hook is placed so that it rides in a horizontal position in front of the fireman's shoulder; thus, in case a rest is needed, he merely leans forward and engages the hook on a rung of the ladder, supporting his load until ready to continue.

Carrying hose and other heavy objects up ladders, and strapping ladder tops to window ledges or roofs, are also easily done with this belt.

GEORGE H. WEST.

Commissioner Castimore Retires

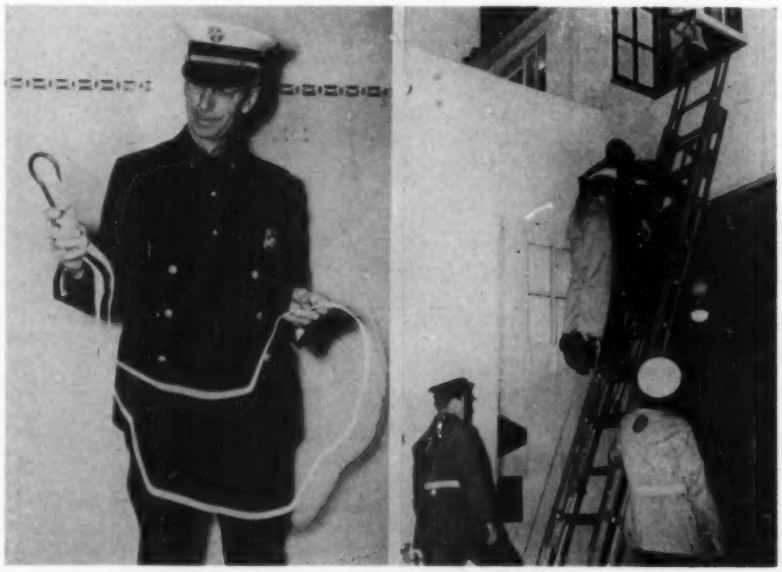
Fire Commissioner W.R. Castimore of Buffalo, N. Y., who has rounded out forty-five years of service with the Buffalo Fire Department, retired on January 1.

Commissioner Castimore joined the fire department on June 25, 1897, as a substitute fireman. After serving two years as a substitute he was appointed fireman April 1, 1899. He was promoted to lieutenant on June 15, 1907; captain, December 15, 1913; battalion chief, October 1, 1921; deputy commissioner, February 1, 1930, and commissioner, March 1, 1933.

Commissioner Castimore plans to sever all connections with the department, get a good night's sleep for a change and spend some time in his garden in the summer and probably the winter in Florida.

John J. Tubridy was appointed to head the Buffalo, N. Y., Fire Department upon the retirement of Commissioner Castimore.

Commissioner Tubridy was appointed to the fire department on July 1, 1916. He served in the Navy during the World War and was reassigned to Engine 8 upon his return. Promotions to lieutenant came on November 1, 1922, and to captain on August 1, 1926. He was named chief of the Sixth Battalion on January 1, 1940.



Ladder Belt Developed by Chief Cassity

The photo on the left shows Chief Cassity with the new ladder belt which he recently developed. The one on the right shows firemen of the Monrovia Fire Department demonstrating the use of the belt.

A BIBLE of INSTRUCTION

– For the fire chief who wants to train his men –

– For the ambitious fire fighter studying for advancement –

NEW
Just
Issued

PROMOTIONAL STUDY COURSE FOR FIREMEN

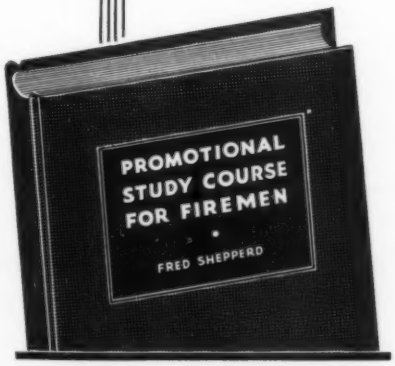
By Fred Shepperd, B.Sc., M.E.

(Editor of FIRE ENGINEERING, and author of such famous and widely used books as "The Fire Chief's Handbook", "Fire Service Hydraulics" and others.)

Published in response to numerous requests from fire department officers and men working for advancement, this new book embraces the famous "Promotional Study Course" which ran serially in FIRE ENGINEERING during the past few years and proved to be so tremendously popular. All the material has been thoroughly revised and brought up-to-date by the author, Fred Shepperd, thus making it easily the latest and best data of its kind available today.

Covering in chapter lessons most of the important phases of fire protection promotional study—mainly in questions and answers form—all of it is in the concise style generally used and preferred by civil service examiners.

To fire chiefs and other officials responsible for preparing promotional examinations, this book will be found most helpful. And it is a mighty good reason, too, why fire officers and men should find it of inestimable value in studying for advancement.



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per copy postpaid

If the book doesn't come up to your expectations, return it in good condition within 5 days and we'll refund your money without a word.

CASE-SHEPPERD-MANN PUBLISHING CORP.
24 W. 40th St., New York

Enclosed is $..... (money-order or check), for which please send me a copy of "PROMOTIONAL STUDY COURSE FOR FIREMEN" (returnable within 5 days if not satisfactory).

NAME.....

ADDRESS.....

CITY and STATE..... 1/42

Defense Savings Pay-Roll Allotment Plan

How company heads can help their country, their employees, and themselves

voluntary pay-roll allotment plan | helps workers provide for the future | helps build future buying power | helps defend America today

This is no charity plea. It is a sound business proposition that vitally concerns the present and future welfare of your company, your employees, and yourself.

During the post-war period of readjustment, you may be faced with the unpleasant necessity of turning employees out into a confused and cheerless world. But you, as an employer, can do something *now* to help shape the destinies of your people. Scores of business heads have adopted the Voluntary Pay-roll Allotment Plan as a simple and easy way for every worker in the land to start a *systematic* and *continuous* Defense Bond savings program.

Many benefits . . . present and future. It is more than a sensible step toward reducing the ranks of the post-war needy. It will help spread financial participation in National Defense among all of America's wage earners.

The widespread use of this plan will materially retard inflation. It will "store" part of our pyramiding national income that would otherwise be spent as fast as it's earned, increasing the demand for our diminishing supply of consumer goods.

And don't overlook the immediate benefit . . . money for defense materials, quickly, continuously, *willingly*.

Let's do it the American way! America's talent for working out emergency problems, democratically, is being tested today. As always, we will work it out, without pressure or coercion . . . in that old American way; each businessman strengthening his *own* house; not waiting for his neighbor to do it. That custom has, throughout history, enabled America to get things done *of its own free will*.

In emergencies, America doesn't do things "hit-or-miss." We would get there *eventually* if we just left it to everybody's whim to buy Defense Bonds when they thought of it. But we're a nation of businessmen who understand that the way to get a thing done is to *systematize* the operation. That is why so many employers are getting back of this Voluntary Savings Plan.

Like most efficient systems, it is amazingly simple. All you have to do is offer your employees the convenience of having a fixed sum allotted, from each pay envelope, to the purchase of Defense Bonds. The employer holds these funds in a separate bank account, and delivers a Bond to the employee each time his allotments accumulate to a sufficient amount.

Each employee who chooses to start this savings plan decides for himself the denomination of the Bonds to be purchased and the amount to be allotted from his wages each pay day.

How big does a company have to be? From three employees on up. Size has nothing to do with it. It works equally well in stores, schools, publishing houses, factories, or banks. This whole idea of pay-roll allotment has been evolved by businessmen in cooperation with the Treasury Department. Each organization adopts its own simple, efficient application of the idea in accordance with the needs of its own set-up

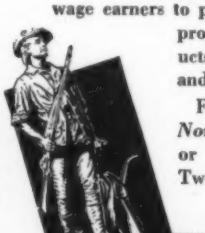
No chore at all. The system is so simple that A. T. & T. uses exactly the same easy card system that is being used by hundreds of companies having fewer than 25 employees! It is simple enough to be handled by a check-mark on a card each pay day.

Plenty of help available. Although this is *your* plan when you put it into effect, the Treasury Department is ready and willing to give you all kinds of help. Local civilian committees in 48 States are set up to have experienced men work with you just as much as you want them to, and no more.

Truly, about all *you* have to do is to indicate your willingness to get your organization started. We will supply most of the necessary material, and no end of help.

The first step is to take a closer look. Sending in the coupon in no way obligates you to install the Plan. It will simply give you a chance to scrutinize the available material and see what other companies are already doing. It will bring you samples of literature explaining the benefits to employees and describing the various denominations of Defense Savings Bonds that can be purchased through the Plan.

Sending the coupon does nothing more than signify that you are anxious to do *something* to help keep your people off relief when defense production sloughs off; *something* to enable *all* wage earners to participate in financing Defense; *something* to provide tomorrow's buying power for your products; *something* to get money *right now* for guns and tanks and planes and ships.



France left it to "hit-or-miss" . . . and *missed. Now* is the time for *you* to act! Mail the coupon or write Treasury Department, Section A, 709 Twelfth St. NW., Washington, D. C.

FREE - NO OBLIGATION

Treasury Department, Section A,
709 Twelfth St. NW., Washington, D. C.

Please send me the free kit of material being used by companies that have installed the Voluntary Defense Savings Pay-Roll Allotment Plan.

Name _____

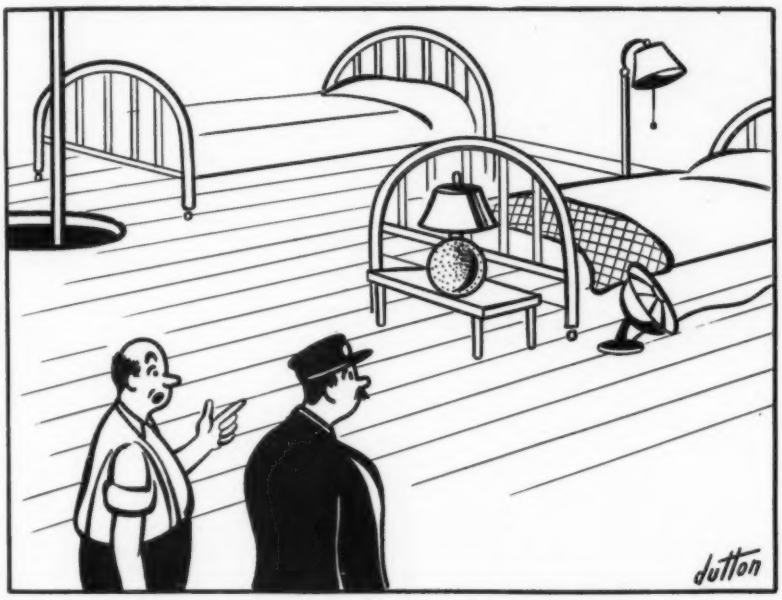
Position _____

Company _____

Address _____

GPO 428498

FALSE ALARMS



"I Understand His Wife's Been Very Lucky at Bingo Lately!"

Down Texas Way

Some boys in Kansas City were showing a Texas rancher the city. "What do you think of our stockyards?" they asked him. "Oh, they're all right, but we have branding corrals in Texas that are bigger," he said.

That night they put some snapping turtles in his bed. When he had turned back the cover he asked what they were.

"Missouri bed bugs," they replied.

He peered at them a moment. "So they are," he decided. "Young uns' ain't they?"

Retaliation

They had been partners for thirty years. But now the partnership was about to be dissolved. One of them lay dying, and called his friend to his bedside.

"Before I go I've a confession to make. During the years of our partnership I've swindled you out of thousands of dollars. Can you forgive me?"

"That's all right. I poisoned you."

Duty?

They had new neighbors and the wife was much interested in them. In a few days she reported:

"They seem a most devoted couple, John. He kisses her every time he goes out, and even waves kisses to her from the sidewalk. Why don't you do that?"

"Why don't I? Good heavens, I don't even know her yet."

"How can you tell the gander from the goose?"

"Oh, we never bother about that. We just let them run together and work it out for themselves."

Awaiting Reply

The excitable fellow threatened to commit suicide every time a certain girl turned him down.

She refused him again the other night, and the next morning a messenger boy called at her house with this note:

"Darling: By the time you read this, my body will be floating down the river. Life without you is not worth while, so I cannot live any longer. Shed no tears over me, but just remember that I have always loved you. Goodbye forever."

The girl's face became white as chalk and she nearly fainted.

"He has killed himself!" she gasped.

Then she noticed that the messenger boy was still standing there, so she asked: "What are you waiting for?"

He said: "The gentleman what gave me the note said I was to wait for a reply."

Surprise!

A young man was given his choice of either marrying the girl or contributing to the baby's support until he was twenty-one. The girl involved was so homely he chose the latter course. He gave the boy an allowance faithfully until his twenty-first birthday when the boy called for his payment. The man told the boy to tell his mother that that was the last payment and to watch her face when he did so. When the boy told his mother, she replied, "Go back and tell him he's not your father—then watch HIS face."

"Thanks Boys, and When Josie and I Get Settled, We Want You Over for Dinner Some Evening!"

"--- yes, but it's not coming out of the nozzle! How is it your company's so successful at every fire ?"
"WE USE GOODALL'S FIRE HOSE!"
"DOUBLE GREEN STRIPE WOVEN INTO COTTON JACKET DISTINGUISHES GENUINE GOODALL UNDERWRITERS FIRE HOSE
"SEND FOR CIRCULAR ON GOODALL HOSE, COUPLINGS AND CLOTHING FOR FIRE FIGHTERS."

Typical of the roster of Goodall customers for Municipality Fire Hose are New York City; Newark, N. J.; Los Angeles, Cal.; St. Paul and Duluth, Minn.; Cincinnati and Cleveland, Ohio; Dallas, Whitney and Irvington, Texas; Norristown, West Chester, Swarthmore, Penna.; American Fork, Payson City and Ogden, Utah; District of Columbia . . . and the United States Army and Navy. . . . These and many, many more, have found the Goodall name insures quality and stands for absolute safety.

Remember Goodall when your next bids go out . . Send for folder.

FIRE HOSE • FITTINGS • BOOTS • CLOTHING

GOODALL RUBBER CO., 6 S. 36th Street, Philadelphia

NEW YORK BOSTON PITTSBURGH CHICAGO TRENTON
GOODALL RUBBER CO. OF CALIF. GOODALL RUBBER CO. OF TEXAS

★ ★

NATIONAL DEFENSE

calls for a good

FIRE DEFENSE

and a good fire defense calls for

AKRON BRASS

FIRE FIGHTING APPLIANCES

Every Fire Department must bring its personnel and appliances to an "On the Alert" basis in order to provide maximum protection to its community.

Prepare your community to meet and cope successfully with the increased fire hazards which threaten our country because of the war by providing Akron Brass fire fighting appliances to your fire fighters.

Akron Brass products are designed and built to withstand hard usage and at the same time deliver maximum efficiency. For more than 20 years the name of Akron has represented leadership in research and development of first line fire fighting appliances.

SOME FAMOUS AKRON PRODUCTS

Drop Forged Rocker Ring Couplings	Quarter Turn Nozzles	Rogers Rope Tool
Cast Rocker Lug Couplings	Ladder Pipes	Gardner Hose Hoist
Drop Forged Couplings	Rotary Hydrant Pumps	Akron Hose Clamp
Roll Pin Couplings	Tannic Acid Kits	Fits-All Nozzle Holder
Ball Type Shut-offs	Stacked Tips	Universal Thread Adapter
Akr-O-Mist Nozzles	Ball Type Siamese	Apparatus Angle Elbow
Multiversal Nozzles	Water Thiefs	Barker Click Valve
No-Leak Shut-offs	Oildraulic Expander	Little Giant Play Pipe
	Akron Siphons	

For a wide range of Akron fire protection appliances see Free Illustrated Catalog No. 40

AKRON BRASS MFG. CO., INC.

WOOSTER, OHIO

WHAT'S BURNING?

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of December, 1941. These figures, compiled from the telegraphic reports, are based on estimates made at the time and are subject to later investigations and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent losses in thousands of dollars.

Month Ending December 31	Loss in Thousands of Dollars
Terre Haute, Ind.—Sears Roebuck Company store damaged	50
Byron, N. Y.—Haxton Canning Company plant destroyed	50
Valley Stream, N. Y.—Pavilion Royal, formerly a night club, destroyed	50
Saginaw, Mich.—Murphy & O'Hara Furniture Store damaged	50
Yakima, Wash.—Lee Simon Clothing Store damaged	50
Sitka, Alaska—Twelve hundred pounds of dynamite exploded on barge of Puget Sound Bridge & Dredging Company	80
Clear Lake, Ia.—Louis Bass Pharmacy and W. H. Ward Furniture and Undertaking establishment destroyed	50
Taylor, Tex.—The Wofford Pecan Company plant and 40,000 pounds of pecans	50
Harrison, Ark.—Coffman Building containing general offices of Missouri and Arkansas Railroad, a drug store and a dry goods store destroyed	100
Heber Springs, Ark.—Buildings occupied by theatre, electric shop, bowling alley and feed store destroyed	80
Fort Smith, Ark.—Building destroyed and two adjoining buildings in heart of business district damaged	125
Salinas, Calif.—California Pine Box Distributors plant destroyed	125
Lawrence, Mass.—Odd Fellow's Building damaged, Brockelman's market destroyed and two upper floors of adjoining Central Building ruined	425
Tupelo, Miss.—Tupelo Legion Hut, recreation center, destroyed	50
Rutherfordton, N. C.—Western Auto Store, McIntyre Jewelry Store and offices damaged	50
McColl, S. C.—People's Warehouse Company building and 953 bales of cotton damaged	75
Santa Barbara, Calif.—R. T. Ambrose Lumber Yard with 1,750,000 feet of lumber destroyed	125
Monmouth, Ill.—No. 2 plant of the Western Stoneware Company damaged	125
Grand Rapids, Mich.—Furniture store owned by Adair Alexander destroyed; Joseph Paint Stores damaged	50
Edgewater, N. J.—Plant of the Kellogg & Spencer & Sons Co., manufacturers of chemicals destroyed	300
Oskaloosa, Ia.—Warehouse of Continental Overall Co. destroyed	160
Manchester, N. H.—Mill No. 9 in Amoskeag yard, operated by Arms Textile Manufacturing Co. damaged	50
Moyock, N. C.—Main building of the rural high school destroyed	70
Winooski, Vt.—Moquin Baking Company plant destroyed	50
Seattle, Wash.—Three top floors of Sanitary Food Market destroyed	80
Rice Lake, Wis.—E. E. Quinn Building damaged	50
Hoxie, Ark.—Hoxie high school destroyed	80
Tuscaloosa, Ala.—Holt high school destroyed	60
Kankakee, Ill.—Kankakee State Hospital for the Insane destroyed	80
Chicago, Ill.—Plant of the International Agricultural Corporation destroyed	125
Dayton, Ohio—Store and building of Jollay Furniture destroyed	80
Needham, Mass.—Nelson Building occupied by the F. W. Woolworth Store, W. T. Grant store, Kinnes Pharmacy and grocery store damaged	60
Freeport, Ohio—Planing mill, dry kiln, service station and storage building owned by L. D. Latham's Sons destroyed	50
Harrisburg, Ore.—Harrisburg Flax Plant with 600 tons of retted flax	60
Hanover, Ind.—Classic Hall, principal building of Hanover College destroyed	80
Newark, N. J.—Steel & Alloy Tank Co. plant damaged. Precision tools and welding rods used in manufacture of steel containers destroyed	80

CLASSIFIED ADVERTISING

Bids Wanted, For Sale and Help Wanted, $5 per inch. Position Wanted, $2.50 per inch.

WANTED

Jobbers to sell our Morning Pride Firecoat, with Wing Freedom Sleeves, Chest Protector, Face Protecting Collar, Waterproof-Wool Wristlets, No Dirt Pockets. Made from Protected Rubber Fabric. Write today. Morning Pride Mfg. Co., 1986 Home Ave., Dayton, Ohio.

WANTED

Steam fire engine. Not necessary to be motorized or in pumping order. Write, specifying price, general condition, and, if possible, photograph, to Ernest N. Day, Dunnellen, New Jersey.

PHOTOGRAPHS

If you use more than one hundred (100) photographs of single subjects it will be to your advantage to inquire about the new Universal Phototones. Universal Engraving & Colorplate Company, Inc., 590 Monroe Street, Buffalo, N.Y. 1921 E. 19th St., Cleveland, Ohio.

Stockton, Calif.—Alfalfa mill on Roberts Island ranch of I. N. Robinson destroyed 50

East Glastonbury, Conn.—Thames Woolen Company mill destroyed 125

Whigham, Ga.—Whigham High School building destroyed 50

Scotia, N. Y.—Empire Community Market and Frick Machinery Company destroyed 60

Whitman, Mass.—Eight one-story stores destroyed; occupied by the Johnson Drug Co., Crosby Jewelry Co., J. J. Newbury's Department store, Sally Dress Shop, Cushman's Bakery, Welch Electric Store, Leavitt's optometry shop, W. H. Alden grocery, Dorothy's Beauty and Barber Shop and shoe shine shop 125

Kansas City, Mo.—Building occupied by First Federal Savings & Loan Association, United Saving & Loan Association, Arthur Fels Bond & Mortgage Company, Julian's Beauty School and offices, damaged 50

Fremont, Ohio—S. H. Emick Motor Freight Line terminal destroyed 80

Peckville, Pa.—Colliery of the Supreme Anthracite Coal Co. damaged 110

Browntown, Wis.—Main building of Browntown Silica Co. destroyed 125

Lynn, Mass.—St. Mary's R. C. Church destroyed 425

Boston, Mass.—Building occupied by Chas. Manana, destroyed; also slight damage to building adjoining occupied by Boston Opera House 50

Chief Morris to Retire

Fire Chief Lynn R. Morris has tendered his resignation after a service of forty-six years with the Ames, Ia., Fire Department.

Chief Morris was one of the charter members of the department when it was organized on June 15, 1895, and has been the Chief since 1910.

The Chief has variously served as President of the Iowa Firemen's Association and as Secretary of the Fire Chiefs Association of Iowa. He is also a member of the International Association of Fire Chiefs and served as State Vice-President of that organization.

He has seen the Ames Department grow from the horse drawn apparatus days to the finest mechanized equipment, and the force built up to be one of the best smaller town departments in the state.

Impeller and Gear Assembly of Waterous 1000 Gallon Two-stage Centrifugal Pump

and.. the cost would be much higher if water entering the gear case and bearings should cause your pump to fail, at a major fire. Seepage of water—with or without sand—into vital parts of any fire pump is a very serious hazard.

In Waterous Centrifugal Pumps there is triple protection, positive and unfailing. First the stuffing boxes, next the flinger rings to keep sand and water out of gears and bearings, and finally the oil seals to keep lubricants in.

To our knowledge there has never been a single case of failure in this protective system. If you want to enjoy the same safety in your fire apparatus specify the Waterous Fire Pump.

Waterous Company Established 1886 **St. Paul, Minn.**

Waterous Dependable

WATEROUS

CENTRIFUGAL-ROTARY

FIRE PUMPS

★ ★ ★ ★ ★ ★ ★ ★ ★

Make it an

ALL OUT!

against

ASPHYXIAL DEATH

In these times of emergency, the Emerson Resuscitator is making the same record in the treatment of shock, smoke and gas poisoning, drowning and other asphyxia as the Emerson "Iron Lung" has made in infantile paralysis epidemics of the past.

Its outstanding record of achievement has made the Emerson America's fastest growing breathing machine.

★

J. H. EMERSON CO.

22 Cottage Park Ave.

Cambridge, Mass.

★ ★ ★ ★ ★ ★ ★ ★ ★

Convention Dates

Feb. 25—FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Monthly meeting. Darien, Conn. Secretary, Chief John Moehring, Stamford, Conn.

March—THE CONNECTICUT FIRE CHIEFS' CLUB. Quarterly meeting. West Hartford, Conn. Secretary, D. B. Mercer, Woodbridge, Conn.

April—FLORIDA STATE FIREMEN'S ASSOCIATION. Annual meeting. Miami, Fla. Secretary, Chief F. C. Pfaender, Chattahoochee, Fla.

May—IOWA FIRE CHIEFS' ASSOCIATION. 13th annual meeting. Ames, Ia. Secretary, Chief L. R. Morris, Ames, Ia.

May 6-8—Georgia State Fire College. Annual meeting. Atlanta, Ga. Director, Harry Phillips, Atlanta, Ga.

May 11-15—National Fire Protection Association. Annual meeting. Atlantic City, N. J. General Manager, Percy Bugbee, 60 Batterymarch Street, Boston, Mass.

May 18-20—New York State Association of Fire Chiefs. Annual meeting. Schenectady, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y.

June—NORTH DAKOTA FIREMEN'S ASSOCIATION. Annual meeting. Botteneau, N. D. Secretary, H. R. Handtmann, Fargo, N. D.

June—SOUTH CAROLINA STATE FIREMEN'S ASSOCIATION. Annual meeting. Newberry, S. C. Secretary, Chief Paul E. Wilburn, Union, S. C.

June—OKLAHOMA STATE FIREMEN'S ASSOCIATION. Annual meeting. Oklahoma City, Okla. Secretary, Charles Slemp, Oklahoma City, Okla.

June—SOUTHEASTERN ASSOCIATION OF FIRE CHIEFS. Annual meeting. Valdosta, Ga. Secretary, Chief Walter W. Stephen, Monsanta Chemical Company, Anniston, Ala.

June 1-5—SOUTH DAKOTA FIREMEN'S ASSOCIATION AND FIRE SCHOOL. Annual meeting. Watertown, S. D. Secretary, M. C. Sullivan, Parkston, S. D.

June 8-10—MINNESOTA STATE FIRE DEPARTMENT ASSOCIATION. Annual meeting. Shakopee, Minn. Secretary, Fred Pfaender, New Ulm, Minn.

June 16-19—ILLINOIS FIRE COLLEGE. 18th annual meeting. Univ. of Illinois, Champaign-Urbana, Ill. Secretary, Chief Roy W. Alsip, Champaign, Ill.

June 17-20—ARIZONA STATE FIREMEN'S ASSOCIATION. Annual meeting. Prescott, Ariz. Secretary, H. W. Reggin, Prescott, Ariz.

June 22-25—COLORADO STATE FIREMEN'S ASSOCIATION. Annual meeting. Durango, Col. Secretary, G. Turnbull, 215 Boston Bldg., Denver, Colo.

June 23-25—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 20th Annual Convention. Rutland, Vt. Secretary, Chief J. W. O'Hearn, Watertown, Mass.

June 25-27—EASTERN ASSOCIATION OF FIRE CHIEFS. Annual meeting. Reading, Pa. Secretary, Chief Charles E. Clark, Box 217, Wayne, Pa.

June 25-27—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting. Mechanicsville, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y.

July 1—TEMISKAMING FIREMEN'S ASSOCIATION. Annual tournament. New Liskeard, Ont. Secretary, F. E. Thompson, Box 686, New Liskeard, Ont.

July 15-17—MARITIME FIRE CHIEFS ASSOCIATION. Annual meeting. Kentville, N. S. Secretary, Charles A. Cunningham, St. John, N. B.

August—CONNECTICUT STATE FIREMEN'S ASSOCIATION. Meeting place to be decided upon. Secretary, D. W. Harford, South Norwalk, Conn.

Aug. 11-14—VIRGINIA STATE FIREMEN'S ASSOCIATION AND AUXILIARY. Annual meeting. Luray, Va. Secretary, R. B. Barker, Box 893, Newport News, Va.

Aug. 14-15—VERMONT STATE FIREMEN'S ASSOCIATION. Annual meeting. Middlebury, Vt. Secretary, W. H. Adams, Vergennes, Vt.

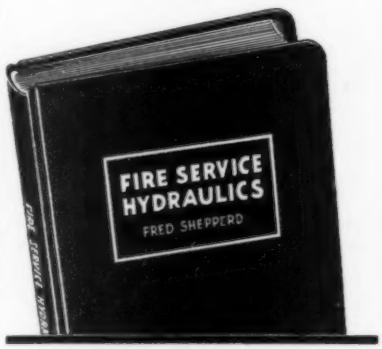
Aug. 18-21—FIREMEN'S ASSOCIATION, STATE OF NEW YORK. Annual meeting. Rome, N. Y. Fred A. Davis, Fort Edward, N. Y.

September—NEW HAMPSHIRE STATE FIREMEN'S ASSOCIATION. Annual meeting. Meeting pjlace to be decided upon. Secretary, Aubrey G. Robinson, Manchester, N. H.

Sept. 18-19—NEW JERSEY STATE FIREMEN'S ASSOCIATION. Annual meeting. Meeting place to be decided upon. Secretary, Evan F. Benners, Room 602, 24 Branford Place, Newark, N. J.

Sept. 21-22—TEMISKAMING FIREMEN'S ASSOCIATION. Annual meeting. New Lis-

Every Progressive Fire Fighter Needs This New Book



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Sept. 21-24—CALIFORNIA STATE FIREMEN'S ASSOCIATION. Annual meeting. Fresno, Cal. Secretary, Harry E. Strasser, 2046 Oregon Avenue, Long Beach, Cal.
OCTOBER — ARKANSAS STATE FIREMEN'S ASSOCIATION. Annual meeting. Fayetteville, Ark. Secretary, H. D. Compton, Central Fire Station, Little Rock, Ark.
Oct. 5-8—INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION, INC. 47th annual meeting. Atlantic City, N. J. Secretary, Irvin Shulsinger, 8 East 41st St., New York.
Oct. 6-8—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. Annual meeting. Allentown, Pa. Secretary, Charles E. Clark, Wayne, Pa.
Oct. 13-15—ILLINOIS FIREMEN'S ASSOCIATION. 55th annual meeting. Springfield, Ill. Secretary, Chief Roy W. Alsip, Champaign, Ill.

Chief Keena Retires

Chief Michael T. Keena of the Hartford, Conn., Fire Department, retired from active duty on December 22, as the result of a compulsory retirement ordinance limiting the age of a fire chief to sixty-five.

The Chief entered the department on May 1, 1900. He was appointed pipeman in January, 1907; appointed to captain in 1908; made deputy chief in 1913 and chief in 1937.

Under his supervision the City of Hartford won the United States Chamber of Commerce Grand Award last year.

On December 18, Chief Keena was tendered a dinner by his associates in the Connecticut Fire Chiefs' Club and by his fellow citizens in Hartford. Present at the dinner were Governor Robert A. Hurley of Connecticut, Mayor Thomas J. Spellacy of Hartford and many other of the leaders of Hartford's business.

Following the dinner, Chief and Mrs. Keena drove home in a new Cadillac sedan which was a gift of his many friends.

Fire Classes for All in New York

Civilians from high school age up who live in defense-production areas in New York State will have an opportunity to receive instruction in combating incendiary bombs.

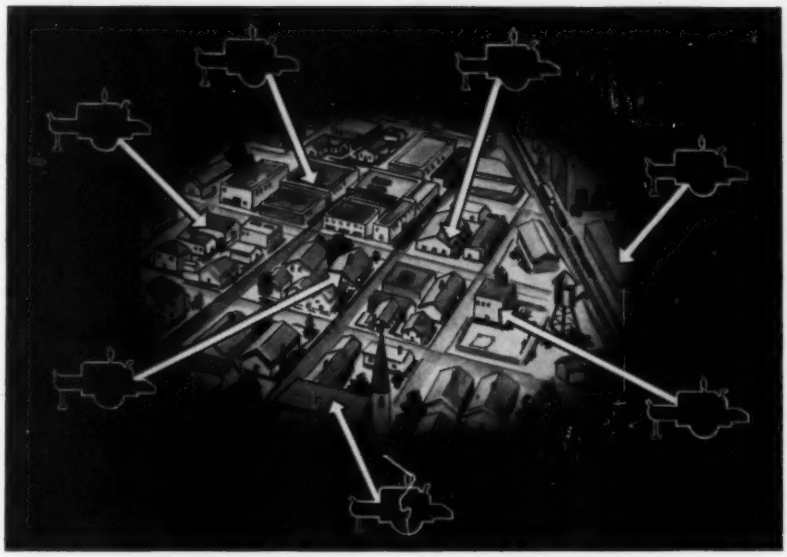
This was decided when a program mobilizing the State fire forces was adopted at the request of Governor Herbert Lehman. The State's seventy-one graduates of the Army's Chemical Warefare School at Edgewood, Md., were later drafted as chief fire defense civilian instructors in their home areas at a conference presided over by Albert H. Hall of the State Education Department who has been named to have charge of training firemen and civilians.

James J. Deasy, former battalion chief of New York City and now the State's chief fire instructor, has prepared instructions on how to handle incendiary bombs. Copies were mailed to all fire chiefs so that they might begin organizing training schools in their communities at once.

A Correspondent Wanted

Mr. Roland E. Lambert, of 44 Taylor Road, Wallington, Surrey, England, is a member of the Auxiliary Fire Service in England. He is anxious to communicate with young members of American Fire Departments with a view to exchanging information regarding fire protection.

Anyone wishing to correspond with Mr. Lambert may contact him direct.



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In any community exposed to war operations or sabotage, many scattered fires may demand simultaneous action. Existing equipment may not be able to cope with such a situation.

The relatively low cost of LaBour Fire Trailers makes it possible to provide several independent units, stationed at strategic intervals, for the cost of a single standard pumper. Any passenger car can draw the LaBour to the fire, and one or two men can handle the whole fire fighting job, thanks to the simplicity and size of the LaBour Fire Trailer.

It is light in weight, easily mobile, to go through littered streets, over soft ground or weakened bridges. It can pump water anywhere, drawing from streams, cisterns or ponds as well as from hydrants. Dirty water will not harm or clog the pump.

Send for your free copy of Bulletin 49 for full details about the LaBour Fire Trailer.

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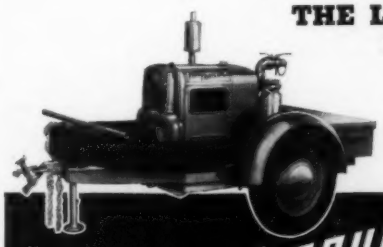

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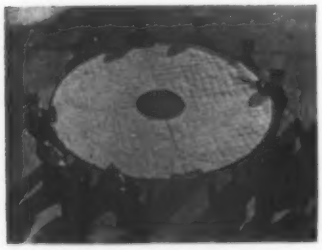
What equipment do you have to save lives? Pumper units, fire tools and ladders help fight fires but strictly speaking, they are not designed to save lives. The ATLAS LIFE NET is engineered for that job!

The ATLAS is a safe, practical LIFE NET. It contains exclusive mechanical features which make it the only Net that can "safe land" jumps from great heights without injury to anyone. And of particular importance today, the ATLAS is a PORTABLE unit; it can be moved easily and quickly to any scene of action where large apparatus can not be operated.

Lives are valuable now, moreso than ever before. Their safety is essential for the protection of our Country. For the sake of all concerned, don't risk wasting lives. Begin now to get modern life saving nets — ATLAS LIFE SAVING NETS — recognized by fire chiefs everywhere as the best for life saving jobs.

●



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CORRESPONDENCE

Activities of Mingo Junction Fire Department During Fire Prevention Week

To the Editor:

It may be interesting to the readers of FIRE ENGINEERING to hear of the activities of the Mingo Junction Fire Department during Fire Prevention Week.

Fire inspections were conducted throughout the entire business district, seventy-four in all, by the volunteer fire department. A total of 563 risks were inspected, of which 105 were found defective. These were followed up during the next thirty days, with the result that but eighteen per cent of the defects remained at the end of that time.

A fire prevention poster contest was conducted throughout the public and parochial schools. Twenty-one students received certificates of merit for excellence in art. Mayor Hamrock also gave a cash prize to the best poster in each school.

The Fire Department also conducted a rigorous campaign for a bond issue to secure a new fire engine. This received an overwhelming majority in the election, securing a total of seventy-one per cent of the votes cast. This will put our city in line for a better insurance classification. We are now in Class Eight, due principally to poor equipment.

JOSEPH A. GRANTONIC, Chief,
Mingo Junction, Ohio.

Fire Department Hobby

To the Editor:

I have a large collection of old firemen's relics and antiquities which I have collected.

I have six old hand tub fire engines of the period from 1845 to 1868 and a hose wagon which dates back to 1895.

One of the engines, the Young Mechanic No. 6, has three sets of brakes, fore and aft, and is a double deck type. It was built by Agnew of Philadelphia in 1854 for New Bedford, Mass. Later it was in service in Middleboro and Mattapoisett, Mass.

At present it is on exhibition in New Bedford, having been loaned to the New Bedford Veteran Firemen's Association.

F. H. REED,
South Weymouth, Mass.

A Letter from Shanghai

To the Editor:

I was very pleased to observe in the August issue of your esteemed journal a copy of my letter to you regarding Major Royere's retirement from the command of the local French Fire Brigade, together with appropriate photographs. Your kindly gesture in this connection is greatly appreciated, not only by myself and senior officers, but by my confreres of the French Brigade.

I would also take this opportunity of thanking you for your very kind reference to Fourth Officer C. C. Caynes, now enjoying a well-earned vacation in your wonderful country, renowned for its hospitality, particularly to visiting fire-

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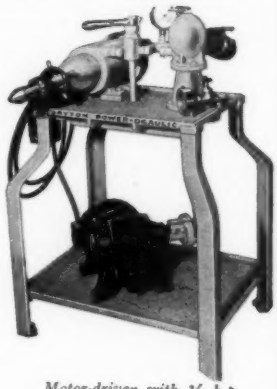

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by Robert McNeish

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men from other parts of the world. I hope one day to have the privilege of calling upon you and upon other stalwarts of the fire service.

The situation is still far from pleasant here, yet we manage to carry on, strong in the hope that one day matters will right themselves.

With cordial greetings,

Yours sincerely,

H. G. REED,

Chief Officer, Shanghai Fire Brigade.

The Fall River Fire

To the Editor:

In your issue of November 1941 I read with surprise an account of the fire at the Firestone Rubber and Latex Company in Fall River, Mass.

It is not for the purpose of a controversial issue that I write you, but the incident as referred to in Paragraph 2 of the article, I feel, unjustly criticizes the Fall River Fire Department. The item infers that the aerial ladder truck was the first piece of apparatus to arrive at the fire, therey blocking other companies, and it would also cause one to believe that the ladder company preceded water companies to the fire. This is not true as there were three water companies and two district chiefs already working at the fire. Had the sprinklers been left alone and not shut off when they were, the fire no doubt would have been taken care of by the sprinklers and the companies already fighting it.

In Fall River, as in other city departments where water and ladder companies are housed together, ladder companies are always preceded by water companies.

I would refer you to an article in the "Factory Mutual Record" of November, 1941 under the heading "Watchman Shuts Off Sprinklers," and also to an edition of the Factory Insurance Association which heading reads "The Great Firestone Disaster," paragraph 4 on the last page of which reads in part "The heat from the fire opened sprinklers in the room and these sprinklers had the fire under control—until—a watchman made the fatal mistake and shut the water off the entire sprinkler equipment in Building Number 5.

Yours very truly,

GEORGE E. MCGAW

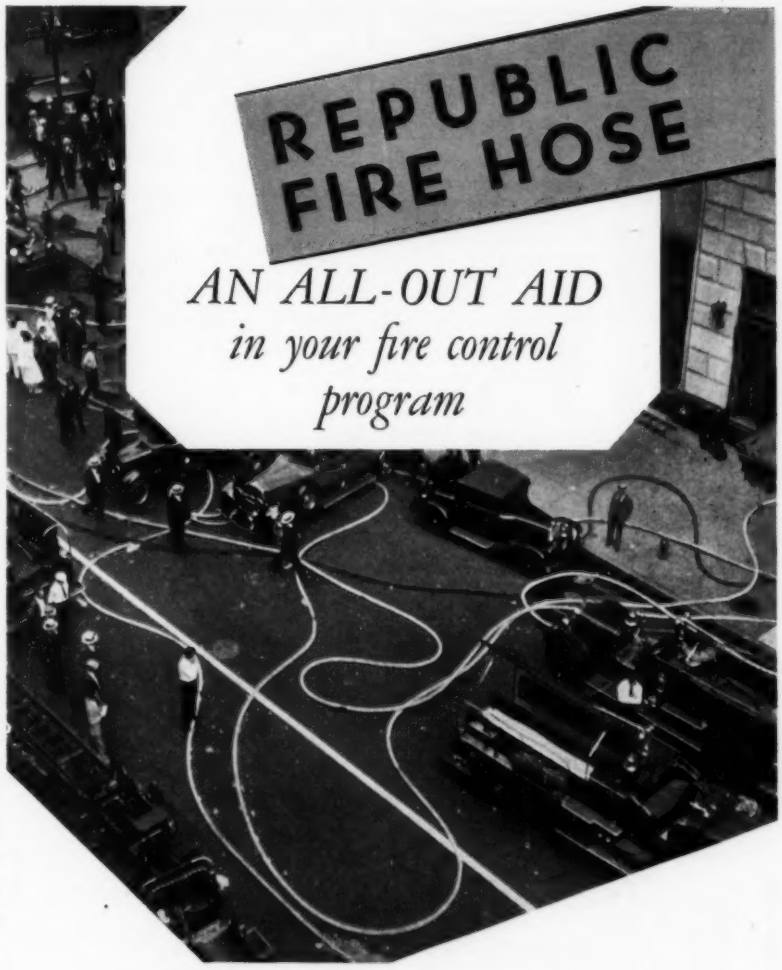
Chief of the Fire Department

Editor's Note: Our apologies to Chief McGaw. We are pleased to publish his letter, which gives correct information on the fire.

Firemen and Police to Fill Dual Role

Police are to be trained in fire fighting technique and firemen in police work to provide a flexible safety force in any emergency in the city of Cincinnati, Ohio. The Civilian Protection Committee of the Hamilton County Civilian Defense Council already has made plans to give police and firemen the new training. Classes will be organized as soon as training is completed in wartime techniques in civilian and property protection.

This interchangeable safety force will be able to fight fires and keep order and will enable the mobilization of large units necessary for any kind of safety work.



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Fire fighting officials, you can help your men to greater efficiency and speedier control of fires, by recommending the installation of POTTER Slide Fire Escapes on all public buildings such as schools, hospitals, institutions and industrial plants with high fire or explosive hazards.

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WAR FARE

Alarms and Discussions Clipped and Culled from the War News of the Day, of Interest to the Fire Service.

Roi B. Woolley

Hot Off the Tape

Tires will be rationed in New York City under direction of Harold W. Mc Graw. The "R & R" state that among the classes of civilian vehicles for which new tires may be bought are those used for fire department service. "Wot about the Vamps?" is gonna be a moot question. . . . President Roosevelt has approved $295,145 grant for purchase of additional fire-fighting equipment for Honolulu. Might be a good idea to spend a little money to put those target-hangars underground! . . . When an army training bomber got out of control, hit high-tension wires, crashed into sandpit and exploded, five were killed—blasts were heard five miles. What woulda happened if it had dived into a Brooklyn shopping district! . . .

* * *

London has set up more than 100 air raid shelters exclusively for pets which are barred from rest centers for air raid victims. . . . Yonkers (N.Y.) is to prepare three raid shelters out of rock embankments, at cost of about $200,000. . . . Haled into court at Chesham, England, on charge of "allowing a bonfire in his garden," a British householder pleaded that he thought an incendiary bomb had set it alight. Judge fined him $4. . . . By the way, fines that may run as high as $500 may be imposed by New York City magistrates for failure to comply with air raid warden's orders. . . Population of Philadelphia (Pa.) is warned to seek shelter immediately next time a fire or police siren sounds, because there won't be any air raid warning tests in that area. . . . New York City's air raid wardens were upset, no end, when they found first whistles given them for use in connection with their duties were *"made in Japan."* . . . National Broadcasting Co. has banned use of siren, or other sound effects in all broadcast programs, that might be confused with air raid alarms. . . . It's said that enough time is lost by accidents yearly in this country in first nine months of 1941 to build a navy. . . . War Department has renewed a contract with National Board of Fire Underwriters for one year for technical services covering fire-prevention engineering and consultation on water-distribution systems in connection with national defense. . . . For months prior to her declaration of stab-in-back war, Japan was practicing fire defense, with simulated bombing, etc. Well, it won't be long now before they have a chance to show what they can do. . . . Camouflage experts now believe whole cities will be "piped for smoke" to foil enemy air raiders. Oughtn't to be hard to get plenty of "smog" in some of our cities, eh chiefs? . . . . Lloyds of England is betting 99 to 1 odds on against total loss of property by enemy attack on Washington and other American cities. . . . At demand of AFL unions, Downtown Business Men's Assn. of East St. Louis had firemen

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take down and burn fifty Japanese made silver and paper bells that hung as Christmas decorations along E. St. Louis's main shopping stem. . . . Of course you know that under the latest Priorities act, the good old brass fire bell will go, along with other trimmings on fire trucks. "An ordinary siren will do the job"—but, how about New York where the Mayor won't let the Brothers use their *sirens* going to a fire, and *must* depend on the *bell!* . . . Fireboats in New York City—and a number of extra fire trucks, have already been painted battleship gray. . . . People are urged to deposit their old auto plates at New York City firehouses. . . . If you want a quick review of the Fire Service work in New York for year 1941, get a copy of "The Chief," Civil Service paper of New York and turn to "Pyro's" column (our old sidewheeler, Jerry Daly) It's good reporting. . . . In Valdosta, (Ga.) a baby was born in a blackout. Shaded flashlights were only light. . . . Police of So. Orange (N.J.) have been hunting 250 lbs. of dynamite that were stolen from a quarry. . . .

* * *

Beware the Sandman

It mighta been expected! Salesman with lots of sand—and bad manners—have been going around Nassau County peddling it to householders in Long Island (N.Y.) as a "must" for air-raid defense, while they posed as air-raid wardens, according to irate Civilian Defense Councils, who denounce the venders as fakers. Sandmen charged 20 cents a bucket or $1 a bag, and said the "Defense Councils" recommended the purchase of *at least two bags!*

* * *

'Twas Too Good To Be True

Somewhere New York papers got tip and printed a yarn that the New York Fire Department was endeavoring to recruit 3,000 to 4,000 experienced switchboard operators to man switchboards in 684 auxiliary fire stations it intends to set up to augment its present network of 285 stations (engine companies) in the event of a bombing raid. Story further said that the Department had requested the American Women's Voluntary Services to list the names of women who wished to enroll for this worrk.

All of which made pretty 'hot' news, and brought flood of inquiries from women who wanted to go to work—but, alas, 'twas all a newspaperman's dream, according to contradiction published January 2.

* * *

"Cause Unknown" and "Suspicious"

We list just a few of the fires, explosions and other events that are known or suspected to be the result of sabotage. Perhaps this very brief record will inspire chief officers to be more alert in their own community!

SANTOS, BRAZIL: Fire of "undetermined origin" destroyed a dock warehouse and material valued at $760,000." Police investigating possibility of sabotage."

* * *

PEORIA, ILL.: They're still arguing about cause of explosion that took four lives at Western Powder Plant. Now attributed to "steel-shod horses" used in pulling cars loaded with crude powder on plant railway. Arson on the hoof, mebbe!

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24 West 40th Street, New York City

KANSAS CITY, KANS.: Sand and grit mixed with lubricating grease in moving parts of drill presses sabotaged machinery intended for bomber plant here. FBI "investigating."

* * *

BALTIMORE, MD.: They don't always get away with it. Judge Wm. C. Coleman, here sentenced M. W. Etzel, 22, former Glenn Martin Aircraft subforeman, to 15 years in prison for damaging airplanes built by that plant.

* * *

SHANGHAI, CHINA.: Six Chinese died, in fire which destroyed large stocks of chemicals and celluloid stored in a warehouse. Scores of families left homeless. In another fire, in Tsingtal, China, scores of persons were burned to death and thousands left homeless when fire swept through waterfront district of the port.

* * *

HUDDERSFIELD, YORKSHIRE, ENG.: 47 persons, most of them girl workers, were killed in a fire that burned swiftly through a 5-story clothing factory. Six more persons were killed in a six-hour blaze that consumed a hotel in Aberdeen.

* * *

KANSAS CITY, MO.: The Cramar Chair Factory, holding government contracts for making airplane seats, was damaged by explosion which police say was due to bomb.

* * *

BALTIMORE, MD.: Giant flying navy war cruiser, Mars was damaged on its first test when, as result of failure of a motor, fire started in an engine housing and spread through nacelle and scorched the body.

* * *

EDGEWATER, N. J.: One worker was killed, others injured and many homes were rocked, in explosion in chemical plant of Spencer, Kellogg & Sons here opposite 110th street, Manhattan, N. Y. Company makes linseed oil products primarily. "Investigations under way."

* * *

SYRACUSE, N. Y.: A 3-alarm fire destroyed testing lab' building of Crucible Steel Co. plant. Machinery, chemicals and testing equipment destroyed. Firemen made good stop.

* * *

WILMINGTON, DEL.: One man was drowned when tanker Frederichsen, Pure Oil Co. tanker, was partially destroyed in a fire. Chief Ludie Croom and his men of Wilmington saved part of cargo, an dship. "Possibly a cigarette."

* * *

NORFOLK, VA.: Two-alarm waterfront fire wrecked Norfolk & Western grain elevator, destroyed over 100,000 bushels grain, loss $200,000. Cause—"not given."

Pay Increases Granted to City Employees

The Wooster, Ohio, Council has passed legislation granting all city officials pay increases effective after January 1. Less than a month ago, a similar proposal was defeated by a four to three vote.

Sharing in these increases are the police and fire chiefs who will receive $2,250 annually. Minor increases were also made in pay of firemen, policemen and employees of several other city departments.

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Chief Carlisle Dead

Former Chief John Howe Carlisle of the Vancouver, B. C., Fire Department died on November 28 at the age of eighty-three years.

Born November 4, 1857, in Hillsboro, New Brunswick, he came to Vancouver just before the big fire of 1886. It would seem that that disastrous and terrifying fire marked him out for his life work, for it was chiefly through his efforts that the city volunteer fire department was organized and he was appointed chief.

Equipment at that time consisted of a steamer with two hose reels and twenty-seven men.

When he retired in 1929, after serving forty-two years as Chief, he supervised an area covering 44.70 square miles of territory, hundreds of thousands of dollars worth of fire fighting equipment, nearly twenty fire stations and several hundred men in his command.

With prevention always in his mind, in 1890 Chief Carlisle was successful in having the City Council authorize the installation of the street alarm system. It started with fifteen boxes, and the boxes now run into hundreds, covering the whole city.

In 1908, after persistent requests, he was allowed to purchase two pieces of motorized equipment as a experiment. By 1917 the whole force was motorized. Vancouver was the first city in Canada to adopt such equipment.

The Chief was the first man to receive the "Good Citizen" Medal from the Native Sons of British Columbia, and a year later received King George's medal for meritorious service.

Chief Carlisle served as President of the Dominion Association of Fire Chiefs and was a member of the International Association of Fire Engineers, now the International Association of Fire Chiefs.

Mulligan Chief at Sacramento

Terence Mulligan has been named Chief of the Sacramento, Calif., Fire Department to suceed Chief Michael J. Dunphy who retired after forty-three years of service.

Chief Mulligan became a member of the Sacramento Fire Department in 1912, serving first as a call man. He was promoted to captain of Chemical Co. No. 4 in 1915 and in 1920 became an engineer. A year later he was made acting assistant chief. In 1925 he was made regular second assistant chief and in 1937 first assistant chief.

Since the present form of government has been in control, Chief Mulligan has been assigned to the headquarters of the fire chief in various supervisorial capacities and has had charge of a large portion of the fire prevention work done by the Fire Prevention Bureau of the Department.

Chief Colemeyer Dies

Chief F. P. Colemeyer of the Seymour, Ind., Fire Department died on December 18 following a nine-week illness.

Chief Colemeyer, who began his career in his youth as a volunteer fireman and who was one of the first regulars appointed to the department, has served as Chief for the last twelve years.

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ACME PROTECTION EQUIPMENT COMPANY
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The Round Table

(*Continued from page 28*)

In the event that we did supply details, I would rotate the men. Any man capable of being a fireman should qualify on a detail of this kind.

I. S. Zorb, Chief, Butler, Penna.: We furnish a theatre detail if the crowd is large. The state law requires the Chief to see that aisles are not crowded. Detail is also furnished on the request of the theatre.

We do not have to furnish a detail more than a few times around Christmas.

J. J. Clark, Chief, Iowa City, Ia.: Theatre details are supplied upon the request of the theatre management.

One fireman makes an inspection of all theatres on Saturday and Sunday nights. We find that by doing this, it is possible to eliminate standing in aisles and on the stairs and to keep the exits open. These nights are the big nights for we have about 5,000 students from the university who go to the theatres.

Samuel H. Jeffries, Chief, Wilkinsburg, Pa.: We have three theatres in our city, seating 1,200, 480 and 410 respectively.

When a theatre wants a fireman we send an off-duty man on a pass. The money that he receives is his own. The management pays $5.00 to the man who is serving. The price is the same whether he serves for one hour or five hours. If a detail is needed for both the afternoon and evening, two firemen are employed, and the theatre must pay each of them $5.00. We try to give each man a turn at this work.

Loran A. Keddie, Acting Chief, Malden, Mass.: Several years ago when one of our theatres had a stock company playing there, a fireman was detailed for duty on the stage. The theatre paid for the detail, the fireman being a call fireman.

There are seven theatres in the city, but all are motion picture shows with no detail required.

J. N. Sullivan, Chief, Utica, N. Y.: Theatre details are supplied to all theatres which have a seating capacity of 750 or over. No compensation is made for this work.

All members of the fire department are used at some time. Different companies are sent to different theatres each week.

T. H. Shipman, Chief, New London, Conn.: Due to the shortage of men, we have never had theatre details, although I am heartily in favor of them.

Whenever it has been necessary to station men at the theatres, the city has had to foot the bills.

H. R. Chase, Chief, Miami, Fla.: Inspectors of the Fire Prevention Bureau are used for theatre detail. They go from theatre to theatre, but not on regular schedules so that the operators never know when an inspector will call on them. All theatres are inspected at least once a week.

Only inspectors of the Fire Prevention Bureau are used unless there is a special show. The bureau then calls on the fire department for men as needed.

M. J. Melillo, Chief, Youngstown, Ohio: Fire details in theatres that are apt to

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H. S. COVER
68 Chippewa St.
South Bend, Ind.

have overflow crowds are required by the fire department. All members of the department are rotated to do this work.

Members of the Fire Prevention Bureau inspect all theatres each Friday morning.

A. E. Taylor, Chief, Richmond, Va.: Theatre details are required by the fire department whenever a capacity house is expected or some special performance. No compensation is received by the firemen, but I feel that some is due them.

Inspectors and certain men from engine companies are detailed for this work.

All theatres in Richmond are inspected by the Fire Prevention Bureau regularly. We receive notice when road companies are booked and firemen and inspectors are detailed to look after them.

Frank A. Northcutt, Chief, Covington, Ky.: The theatres of this city are visited only by the Fire Prevention Bureau at regular inspections. Firemen are detailed at show houses only on request of the management and are not compensated. The men detailed for this work are not always men of the inspection bureau, but any member detailed by the Chief. We have been very fortunate as far as theatre fires and accidents are concerned and think our system is a good one.

J. E. Dellinger, Chief, Macon, Ga.: We do not detail men regularly. The fire inspectors look after theatres on Saturday. As that is children's day they are required.

The theatres request details for special shows when they look for large crowds. This is done. The men receive no compensation from the theatres. The inspectors only are detailed for this duty, except when special large shows are put on and the theatres call for extra help.

At any time upon the request of the theatre management a detail is furnished. This is usually done when the theatre expects an overflow attendance.

Our service is considered part of our duty and no compensation is made.

A certain number of men in central station do this work in order to get dependable men, and also because of the shortage of men in outlying sections.

Marvin K. Evans, Chief, Lynchburg, Va.: A theatre detail is sent to two of the theatres in Lynchburg on Saturday evenings when they are unusually crowded. All the theatres may acquire a detail if a request is made.

When firemen are required to handle a large crowd on the city's time they are picked from the downtown station. Sometimes they are men on the off-shift, and volunteer their services.

Charles De Vleeschower, Chief, South Bend, Ind.: Theatre details are required by the fire department in all theatres in this city. No compensation is received for this work. All members are rotated to do this work.

Chiefs W. G. McCann, Dunmore, Pa.; Edward F. Dahill, New Bedford, Mass.; Claude Osborne, Decatur, Ill.; Wilson McLaughlin, Sandusky, Ohio, and Homer F. Lyles, Houston, Tex., report that theatre details are not supplied to theatres in their cities.

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Can be immediately attached to any private car.

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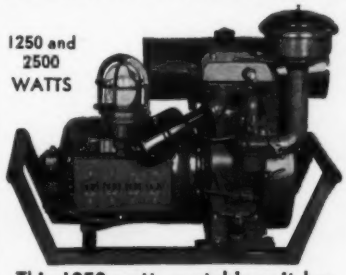
1250 and 2500 WATTS



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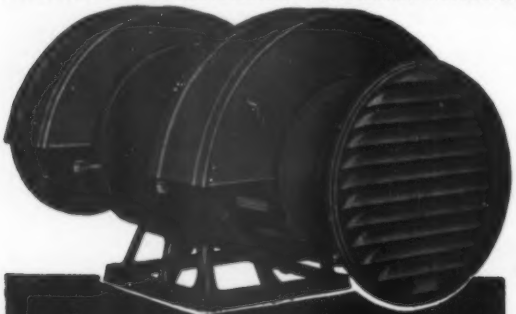

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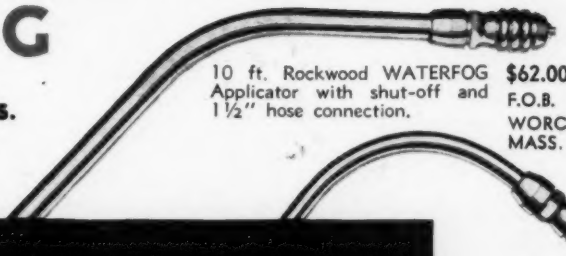

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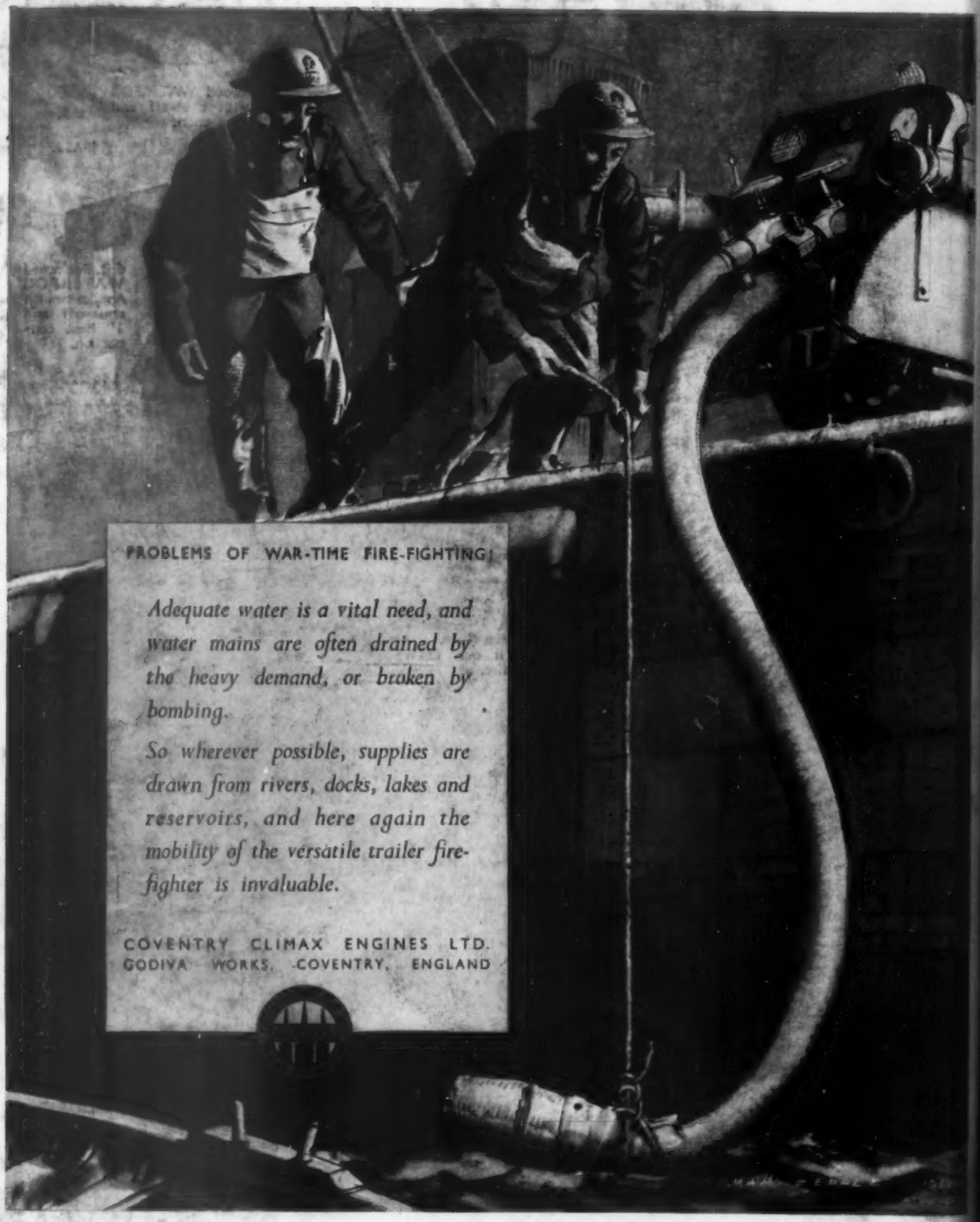
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